

# CA JOURNAL

JAN 9 1952  
Duke University Library

OFFICE OF  
AVIATION INFORMATION

## CAA and Aviation Industry Linked in 1951 Advances

Despite the steadily increasing demands of National defense, the CAA in close cooperation with the aviation industry continued to advance towards a sounder foundation and greater safety, Charles F. Horne, Administrator of Civil Aeronautics, declared in reviewing the accomplishments of 1951.

The CAA's optional plan to the aviation industry for certifying the airworthiness of its own light planes and for testing them was an outstanding example of the close cooperation between the CAA and the industry. To date, the Piper Aircraft Corporation and Cessna Aircraft Company are operating under this optional plan. The CAA, in handing this responsibility to the industry, said that "the ability of the manufacturers to build safe aircraft and their desire to stand back of their products are sufficient justification for the step." Certification of the whole plane by a manufacturer is an extension of the plan followed for several years by the CAA in allowing manufacturers of aircraft accessories to certify their products.

Following up its highly successful practice of designating people within the industry to perform certain routine CAA services to the flying public, the CAA reorganized the Office of Aviation Safety to produce a more unified administration of all safety matters, especially in the CAA's field offices.

**Research on Safety.**—Continuous research, development and education were carried on throughout the year on important matters affecting safety in aviation. Such matters included a better method of stall recovery, panel discussion meetings of pilots to study accidents caused by the pilots themselves, means of evacuation of passengers from airplanes, effects of sudden decompression in pressurized cabins. Studies on helicopters, carried out by a special working group of the Air Coordinating Committee, resulted in the adoption by the Federal Government of a policy of intensified support of commercial transport helicopter development. The European Survey Group of the CAA's Prototype Aircraft Advisory Committee reported on its trip, noting the need for the immediate development of new types of civil transport jet-powered aircraft.

The increased emphasis on military aviation during the year brought the CAA added international responsibilities. New airways facilities were installed in Alaska and the Pacific Islands to assist in the Korean air lift and accommodate growing commercial air traffic with the Orient. Bridging the Atlantic

was a new radio teletypewriter circuit between New York and London, designed to transmit weather and air traffic information in connection with trans-Atlantic flights.

**Airways Aids.**—The number of commissioned VHF omniranges was increased during the year from 281 to about 350, with some 50 others under way. Three new precision approach radar sets and three additional surveillance sets were installed during the year, with 55 others under construction.

The first nine DME ground transponders were placed in experimental operation along the Chicago-New York airway, with 400 others on order from the manufacturer. The ILS increased during the year to 99 in operation domestically, with 69 others in various stages of construction.

Traffic control and communications operations along the 71,000 miles of airways were integrated during 1951, and a program started to train communicators in traffic-control duties and vice versa. Among other advantages, this dual-capacity training was expected

(Continued on page 135)

## National Airport Air Passengers Set New Record

Passenger traffic at Washington National Airport smashed all records in 1951 with more air passengers passing through the airport in the first 9 months than in any previous year. The number of aircraft arrivals and departures at the airport also appeared to be about to set a new record with only 10 of the 12 months of the year reported.

Through October 31 a total of 2,072,548 passengers enplaned or deplaned at the airport. This was in contrast to the former previous high number of 1,629,723 that passed through the terminal during 1950. Of the total passengers during the first 10 months of the year, 1,050,236 were enplaned passengers while 1,022,312 were deplaned passengers. Aircraft arrivals and departures through October 31 numbered 157,887 which was 9,139 over 1950. If the average arrivals and departures for the last 2 months of the year compare with the other years, the 1951 figures will top the high of 180,690 aircraft arrivals and departures established in 1946.

Other important developments during 1951 saw the Government acquire ownership of the underground fuel storage and dispensing system and initiate con-

(Continued on page 138)

## Inexpensive Crosswind Gear Approved

Airworthiness approval has been given by the Civil Aeronautics Administration to a commercial version of the crosswind landing gear designed by John H. Geisse. It is the second commercial version of this CAA development to be approved.

The Geisse gear, which weighs about 4 pounds per wheel, has been designed for quick and easy replacement—using only one wrench—on the single-strut type landing gear such as that used on Cessna planes. In the Geisse version, either wheel can swivel outward but neither can turn inward. This feature improves handling characteristics of the plane in taxiing, and still gives all the safety features for which the crosswind gear was originally sponsored by the CAA.

CAA test pilots, putting the gear through its paces

for airworthiness approval, found that it practically eliminated the possibility of ground loops on the Cessna on which it was installed, and that landings in crosswinds of 90 degrees were safely accomplished.

"Two important savings are made possible by the crosswind gear," Charles F. Horne, Administrator of Civil Aeronautics, said. "It practically eliminates the costly damage caused by ground loops due to landings in a crosswind, where a wing tip is broken, and it makes possible the CAA's policy of building single-strip airports. Thus the airplane operator and the taxpayer benefit by this development, and we look forward to the time when all airplanes are equipped with this helpful feature. Mr. Geisse has made a real contribution in making his gear simple and inexpensive."

# Transcontinental Coach-Type Service Job of Present Carriers, Says Board

The Civil Aeronautics Board last month decided the Transcontinental Coach-Type Service Case, in which 4 applicants had sought authority to engage in unlimited air coach operations transcontinentally, or in lieu thereof coach operations on a limited scale. The Board indicated in its opinion that it felt the operation of coach services on an unlimited basis is merely a part and parcel of the broad air transportation system of the country and that the presently certificated airlines have the duty and will be required to provide adequate regular unlimited coach services. The Board viewed regular coach services as not being supplementary to the operations of the certificated airlines but merely a component part of such operations.

The requests of the applicants for authorizations for less than unlimited operations were viewed by the Board as raising the same questions which will be decided on the basis of a full record in the recently instituted large irregular air carrier investigation, and deferred such applications for consideration in connection with that investigation.

**No Need Demonstrated.**—This case must be decided on the basis of the record presented to the examiner, the Board said, and on the basis of that record no need was demonstrated for unlimited air coach operations on routes already served by as many as three certificated airlines. The Board pointed out that at the present time nine certificated carriers are operating 64 air coach schedules and are serving 36 cities.

The Board further pointed out that the operation sought by the applicants in this case would be between major traffic points and that the costs of providing such services by the applicants were not found by the examiner to be appreciably less than could be attained by the certificated lines under comparable circumstances.

**Price of Major Importance.**—In making its decision the Board indicated clearly that in its judgment the question of coach services is largely one of price and that the people of the United States are entitled to expect the development of our air transportation system to the point where transportation by air will be within the reach of the great majority of the people rather than those of higher incomes. However, the Board indicated that this is a natural development of the air transportation system and can and will be brought about without the necessity for provision of unlimited service by new companies over routes already adequately served.

Member Joseph P. Adams dissented from the majority in its failure to award one or more of the applicants a demand type exemption which would fill, on the one hand, a present vacuum in United States air transportation service, but would on the other hand, retain Board control over the volume of service to be rendered by such applicants.

**Adams Emphasizes "Capability."**—Member Adams cited in support of his dissent the approximate half-million annual low-fare air coach passengers generated by the applicants and like carriers, the obvious reluctance of the transcontinental certificated carriers to develop fully a low-fare air coach service, and numerous Board precedents in which certificates have been awarded in other cases where the traffic volumes were only a fraction of that actually carried over proposed routes in this case. Stressing the need for more affirmative policies and direction by the Board than that demonstrated by the majority here, Member Adams scored the emphasis placed by the majority on the "capability" of the certificated carriers to handle the huge air coach traffic potential. "This 'theory of capability,'" he said, "inevitably forces its proponent to the philosophy of 'preservation of the status quo'; a philosophy which at best is a strange one for the Board to adopt

in the regulation and promotion of an industry as dynamic as the airline industry and particularly in times like these in that industry."

The four applicants whose request for certificates or exemptions were denied in this proceeding are Air America, Inc., Trans American Airways, Inc., California Eastern Airways, Inc., and Great Lakes Airlines, Inc.

## Air Transport Associates Denied Rehearing by CAB

The Civil Aeronautics Board recently denied the petition for reconsideration, rehearing and reargument filed by Air Transport Associates, Inc., a large irregular air carrier with headquarters in Seattle, Washington. By so doing the Board upheld its previous order of September 21, 1951, which revoked Air Transport's letter of registration because of wilful and knowing violations of the Civil Aeronautics Act involved in holding out to the public and conducting a regular air transportation service.

The Board pointed out also that Air Transport was afforded notice and opportunity by the Board to adjust its operations prior to the institution of this proceeding in the form of various warning letters from the Chief of the Board's Enforcement Office. The Board said that the notices actually given to Air Transport concerning its activities and the persistent and flagrant ignoring of those notices by Air Transport certainly establishes a case of wilfulness.

Air Transport's letter of registration, originally issued on August 13, 1948 under provisions of the Economic Regulations of the Board, did not authorize the carrier to conduct unlimited operations for sustained periods between the same points. The Board declared that the carrier's contentions ignore the plain language of the regulation under which its operating authority was issued. In addition to Air Transport's actual operations, the Board added, the carrier at all times held out to the public regular service between Seattle, Washington and Anchorage, Alaska, an activity equally prohibited by Board regulation, and the frequency and regularity of its flights were limited only by the volume of business received in response to that holding out.

## Mail Payment Without Subsidy Proposed for Capital Airlines

In a show cause order issued recently, the Civil Aeronautics Board proposed mail rates for Capital Airlines, Inc., disclosing that the carrier will henceforth require no subsidy mail payments from the Government.

The Board proposed a service mail rate of 53 cents per ton-mile for Capital for the annual period beginning October 1, 1951. At the annual volume of 2,000,000 mail ton-miles for the future year, the proposed service mail rate of 53 cents per ton-mile will produce \$1,060,000 in mail compensation for Capital, a reduction of approximately \$871,000, or 45 percent, as compared with the \$1,931,000 received by the carrier for the 12 months ended August 31, 1951.

The Board's show cause order forecasts that for

Vol. 12 December 20, 1951 No. 12



## CAA JOURNAL

DEPARTMENT OF COMMERCE  
Charles Sawyer, Secretary

Civil Aeronautics Administration  
Charles F. Horne, Administrator

Ben Stern, Director  
Office of Aviation Information

Issued on the 20th of each month by the Office of Aviation Information. Subscription 75 cents a year in the U. S. and Canada. Foreign countries, \$1.00. Sold by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. The printing of this publication has been approved by the Director of the Bureau of the Budget, June 29, 1949.

## Board Grants Midet Aviation Florida-West Indies Route

The Civil Aeronautics Board last month granted to Midet Aviation Corp., a temporary 3-year certificate of public convenience and necessity authorizing foreign air transportation of persons and property between the coterminal points West Palm Beach and Miami, Fla., and the terminal point West End, Grand Bahama Island, British West Indies.

West End, Grand Bahama Island, is the location of Butlins Holiday Village, a vacation resort, located on the extreme western tip of the Bahamas some 60 miles from West Palm Beach and 101 miles from Miami. Midet's operation will be a shuttle service for vacationers departing from Miami and West Palm Beach for the vacation resort.

In selecting Midet as the carrier to operate this service the Board said that the route requires a highly specialized local service involving only the shuttling of passengers between two vacation areas. The Board found that Midet should be selected for the route, because for over a decade Midet has operated in this area, in conformance with the Act and the Board's regulations, and that an examination of the record in the proceeding has demonstrated Midet's fitness, willingness and ability to operate the route.

The applications of Imperial Airways, Mackey Air Transport, Inc., Resort Airlines, Inc., Eastern Air Lines, Inc., National Airlines, Inc. and Pan American World Airways, Inc., in this proceeding were denied by the Board.

the future year beginning October 1, 1951 Capital's net operating income before mail pay will total \$2,043,000 and that after taxes, the net income without mail pay projected for the future year is approximately \$1,100,000. Based on an investment of approximately \$11,000,000 as of June 30, 1951, the annual net return after taxes but before mail pay is approximately 10 percent. From the foregoing it is evident, the Board said, that this carrier has attained a self-sufficient status where it no longer requires subsidy from the Government and where a compensatory mail rate free of such subsidy should be established.



# "Rights of Public Were Disregarded," Board States Position On New York-London CAB Charges in Show Cause Order Tourist Rate Structure

In a strongly-worded order issued last month, the Civil Aeronautics Board directed New England Air Express, Inc., to show cause why its Letter of Registration as a Large Irregular Air Carrier should not be suspended.

Citing charges that New England demonstrated a deliberate disregard of the rights and welfare of the travelling public, the obligations and duties of an air carrier, and the laws and regulations applicable to air carriers, the Board's Enforcement Attorney alleged that the carrier "... has engaged, and is engaging, directly and through its agents, in certain activities and practices involving the subjection of large numbers of passenger to gross mistreatment and other extreme hardships ..."

The Board's Enforcement Attorney also charged that New England on numerous occasions failed to demand, collect and receive the rates fares and charges specified in its tariff on file with the Board. He alleged that the carrier orally contracted with Major Air Coach Systems, Inc., its agent, to operate such flights, and collected payment from such agent on the basis of a lump sum for a minimum number of passengers with the understanding that the amount would be increased proportionately if full loads were furnished by Major Air Coach, whereas the carrier should have received payment on the basis of the individual fares specified in its published tariffs.

**Three Flights Cited.**—Three specific flights operated by New England since September 20, 1951, were cited as instances of deliberate hardship to the travelling public. In the most recent case, a flight supposed to depart from Burbank, Calif., at 9:30 p.m. on October 1, 1951, destined for Newark, N. J., actually departed from Burbank at 8 a.m. on October 2, and during the intervening time passengers already at the airport were required to stand by. This flight, after an en route delay of 7 hours at Hutchinson, Kans., 15 hours at Kansas City, and 2 hours at Chicago, was terminated at Philadelphia, Pa., at 2 a.m. on October 4, stranding its passengers at that point. During this flight it is alleged that the passengers, including service men returning from active duty in Korea and service men reporting back to their duty stations and subject to military discipline for overstaying leave, were refused ticket refunds and subjected to extreme hardship under these circumstances.

**Passengers Buy Gas.**—On another occasion, a transcontinental trip on September 25, 1951, from Burbank to Newark was unable to depart from Amarillo, Tex., a fueling stop, until the pilot advanced money from his personal funds to purchase gas and oil, while the flight was further delayed at St. Joseph, Mo., for 11 hours until the passengers donated money for the purchase of gas and oil necessary to continue the flight.

The Board's Enforcement Attorney also alleged that a flight from Chicago, Ill., destined for Newark, N. J., terminated at Bridgeport, Conn., because the President of New England Air Express, Richard Roy Oliver, learned that the aircraft operated by New England might be attached by one of the carrier's creditors if it landed at Newark. This Chicago flight departed 5 hours after the announced time, and by landing at Bridgeport instead of Newark created an additional several hours delay before a bus could be obtained to transport the passengers to Newark Airport. This delay caused considerable hardship and inconvenience to 9 service men on military leave who were forced to wait an additional 27 hours at Newark before their baggage arrived on another carrier, and an additional 5-hour delay occurred before New England's agent, Major Air Coach, arranged to pay transportation charges on their baggage.

The carrier has been repeatedly warned concerning such violations, the Board said, and specific warning letters were sent to New England on three different occasions. Unlawful tariff practices, among other things, led to the issuance by the Board on October 17, 1949, of an order to show cause why its letter of Registration should not be revoked. This proceeding is still pending before the Board.

## CAA — Plane Industry Join in '51 Advances

(Continued from page 133)

to ease the shortage of skilled traffic controllers caused by return of reservists to military service.

Elements of the U. S. "Common System" continue to increase internationally. More than 30 ILS installations now are operating in the European area; VOR facilities have been commissioned at London and in Wales, with others planned at Paris and Rome; DME installations at London and Paris have been completed and one has been planned for Rome; and 8 VOR installations are planned for Germany and others in the Far East.

**Materials Shortages.**—Materials shortages affecting all civilian industry slowed down aviation expansion but the rearmament program tended to point up the importance of civil aviation in National defense. On the basis of a CAA survey showing that 80 percent of the active non-carrier civil aircraft in the United States are engaged primarily in activities useful to the National defense, the CAA recommended that the production of non-carrier civil aircraft be kept at a minimum level of 3,500 annually, a figure which was approved by the Defense Production Administration.

National defense continued to be the principal governing factor in the construction or development of airports under the Federal Aid Airport Program during the year. Close cooperation with the military services on airport defense matters was continued. The CAA maintained representation on the Airport Use Panel of the ACC which studies problems of joint civil and military use of airports in various sections of the country.

By December 1, 1951, the \$520 million Federal Aid Airport Program had programmed a total of \$181,550,000 in Federal Funds, of which \$163,530,000 had been put under contract. Funds had been granted to 2,282 projects, of which 428 were under construction, 1,562 had been completed and 292 were being processed for construction.

**Airport Program Status.**—The over-all status of the Program as estimated for the close of 1951 shows 2,030 grant agreements for work at 1,095 separate airports at an estimated cost in Federal funds of \$167,500,000. The over-all estimate for project completions was 1,570 at 975 locations for \$101,500,000 in Federal funds.

Important missions on aviation matters were sent by the CAA to other countries, assisting in such projects as an airport improvement program in Ecuador, a communications and traffic control program for Venezuela, and a communications and airport fa-

The Civil Aeronautics Board announced last month its position with respect to certain matters to be discussed by the members of the International Air Transport Association at Traffic Conference meetings beginning November 27, 1951, at Nice, France. The Board's position was reached after conferences with the United States members of IATA.

The Board in a letter to the U.S. members of IATA stated its belief that a North Atlantic Tourist service should be inaugurated prior to the 1952 summer traffic season, specifically holding that a New York-London one-way tourist fare of \$265, with a 10 percent "on" season discount and a 25 percent "off" season discount for round trips, using Shannon, Eire, as the gateway, is a sound fare structure. The Board said that this fare structure will meet the break-even need of the carriers and provide a reasonable element of profit for coach operations, and that the higher "off" season discount will tend to offset normal seasonal unbalance and facilitate attainment of the average load factor.

**Serves as Test.**—The Board pointed out that the proposed fare structure is economically feasible but at the same time low enough to provide for an adequate test of the untapped low-fare air traffic potential across the North Atlantic. The Board said also that scheduled air tourist operations across the North Atlantic should be based upon the highest practical seating density from an operational standpoint and that meal service should be provided only on a compensatory basis, with minimum galley facilities which will not require significant displacement of seats or lift.

The Board's letter to the U. S. carriers also took a firm position with respect to various other items which will be considered by the IATA Traffic Conference. The Board questioned the economic soundness of the "17-day one and one-tenth round trip excursion fare" but said it recognized that such a fare may serve some purpose as an interim measure pending inauguration of tourist service in the spring of 1952. The Board said it would not oppose the one and one-tenth 17-day excursion fare for the 1951-1952 winter season providing that a tourist service is inaugurated in the spring of 1952.

The Board is in agreement with the general North Atlantic standard fare and rate levels adopted at Bermuda with certain exceptions as follows:

(1) The Board can find no justification for and will not approve the continuance of "off" season and short limit excursion fares on the standard service upon adoption of a year-round low fare North Atlantic tourist service; (2) The Board reaffirmed its previous position that the minimum sleeper charge

(Continued on page 140)

cility program for Columbia. In addition, more than 100 leaders in aviation affairs from other nations were given special training in the U. S.

As 1951 bowed out the Government had purchased 1,046 of the 4,520 acres at Burke, Va., that eventually will be the second airport for the Nation's Capital.

Condemnation proceedings on the 4,520-acre tract of land was started by the Department of Justice in June. Purchase of the 1,046 acres completed acquisition of virtually all the owner-occupied land in the site and used up all of the original \$1,000,000 appropriated for land acquisition. Declaration of taking was filed on October 9 by the Department of Justice in the Federal Court in Alexandria, Virginia. This action passed the title of the 1,046 acres to the Government although actual possession of the land has been deferred until May 1, 1952.

## Ranges Will "Speak" Location Identification

Radio ranges and fan markers will "talk" their identification at a number of locations within the next few months, Civil Aeronautics Administrator Charles F. Horne revealed last month.

Alternating with the usual 3-letter Morse code identification, at a number of CAA radio facilities, will be a "voice" which repeats the name of the facility—for example "Long Beach omni."

The voice identification program is aimed at increasing air safety by making identification of a particular air navigation facility more positive, particularly for pilots who have a limited knowledge of Morse code. In the case of a strange facility with code identification only, the pilot today must look up the 3-letter identifier in a publication to be sure which range he is receiving. The voice transmission makes this unnecessary.

In addition to the identification, the "voice" can give additional brief information, such as the fact that a particular range is not connected with a communication station. Such information will prevent pilots from wasting time in making radio calls to non-existent ground stations.

Various recording methods were considered, but all had one drawback—in continuous, day after day flexing, the film, tape, or wire broke. The problem was finally solved by manufacturers under contract with the CAA.

In the new recorder, the voice is first recorded on film, similar to the sound track of a movie. The film is stretched over transparent plastic fixed to the rim of a wheel. When the wheel is rotated slowly, a light shines through the film onto a photoelectric cell below. The cell translates the variations in light received into the "voice" of the reproducer. Since the film is held rigidly in place, without flexing, there is no tendency for it to break or wear out.

The voice reproducers now are being installed at very high frequency omniranges located near the following cities: Longbeach, Calif.; Pittsburgh, Pa.; Chicago Heights, Ill.; New Orleans, La.; Dallas, Texas; Seattle, Wash.; Kansas City, Mo.; Montgomery, Ala.; Cleveland, Ohio; Albuquerque, N. M.; St. Louis, Mo.; Oakland, Calif.; Bozeman, Mont.; Caldwell, N. J.; Cincinnati, Ohio; Boston, Mass.; Jacksonville, Fla.; Salt Lake City, Utah; Minneapolis, Minn.

Fan markers will be equipped with reproducers at Beltsville, Md.; Smyrna, Ga.; Herndon, Va.; La Habra, Calif.; Avon Lake, Ohio; Portchester, N. Y.; Mt. Pleasant, Pa.; Boothwyn, Pa.; New Rochelle, N. Y.; Freehold, N. J. and Woosup, Conn.

Installations will also be made on outer marker compass locators at Los Angeles, Calif.; Chicago, Ill.; LaGuardia, N. Y.; Cleveland, Ohio.

## Two Small-Plane Producers To Test and Certify Own Craft

Two aircraft manufacturers now are authorized by the Civil Aeronautics Administration to test and certify to the airworthiness of small aircraft which they manufacture.

Under a regulation adopted early in October, Charles F. Horne, Administrator of Civil Aeronautics, has granted authority to the Piper Aircraft Corporation and the Cessna Aircraft Co. to take over the responsibility of testing and certification procedures on aircraft of not more than 5,000 pounds and carrying not more than 5 passengers.

Any manufacturer who holds a type and production certificate is eligible to adopt the procedure on application to the CAA.

Adoption of the new procedure is a further step in the CAA's policy of giving industry a greater share in the responsibility for maintaining high

## CAA and CAB Releases

Copies of CAA releases may be obtained from the CAA Office of Aviation Information. CAB releases are obtainable from the Public Information Section of the Board.

### Administration

Ecuador Gives CAA Man Medal of Merit for Services—(CAA 51-61) (Nov. 9).

Aviation Training Given 88 Foreign Nationals in Year—(CAA 51-62) (Nov. 9).

Aviation Enlivens School Teaching Say Teachers, Reporting Adventures—(CAA 51-63) (Nov. 11).

Two Manufacturers Authorized to Test Own Small Planes—(CAA 51-64) (Nov. 23).

"Baby Blabbermouth" Makes Flying Safer—(CAA 51-65) (Nov. 27).

Dec. 15 Last Day to Get Pilot Identification Cards—(CAA 51-66) (Nov. 28).

CAA Approves Geisse Crosswind Landing Gear—(CAA 51-67) (Nov. 30).

Small Planes Need Good Angle of Attack Indicator—(CAA 51-68) (Dec. 4).

Address by Charles F. Horne, Administrator of Civil Aeronautics, 9th Annual Meeting, Aviation Distributors and Manufacturers Association, New York, N. Y., (November 30, 1951) "The Outlook for Civil Aviation in the Immediate Future."

### Board

Board Extends Scheduled Air Coach Services—(CAB 51-81) (October 30).

Immediate Suspension of New England Air Express to be Considered by CAB—(CAB 51-81) (November 1).

Midet Aviation Corporation Authorized by CAB for Air Service Between Florida and Grand Bahama Island, B.W.I.—(CAB 51-82) (November 6).

Civil Aeronautics Board Decides Transcontinental Coach-Type Service Case—(CAB 51-83) (November 8).

Civil Aeronautics Board Makes Statement on North Atlantic Tourist Fares—(CAB 51-84) (November 13).

Civil Aeronautics Board Sets Capital Airlines Final Mail Rate Without Subsidy—(CAB 51-85) (November 13).

Civil Aeronautics Board Decreases Mail Rate Payments to Chicago and Southern Air Lines, Inc.—(CAB 51-86) (November 16).

Board Denies Transport Associates Petition for Rehearing—(CAB 51-87) (November 21).

Board Makes First Cash Award to Employee Under New Awards Program—(CAB 51-88) (November 23).

CAB Sets Mail Rates for Pan American Trans Pacific Operations—(CAB 51-89) (November 23).

Acquisition of Mid-West Airlines by Purdue Research Foundation Approved by Board—(CAB 51-90) (November 23).

CAB Decides Additional Service to Kansas Case—(CAB 51-91) (November 26).

CAB Issues Supplemental Opinion in North Atlantic Route Transfer Case—(CAB 51-92) (November 28).

standards of safety. Following recommendations of the President's Air Policy Commission and the Congressional Air Policy Board that industry be given greater participation in regulatory activities, a study of the personal aircraft manufacturing industry was made by CAA. This study resulted in a recommendation that an optional self-regulatory plan be worked out for the small plane manufacturing industry. The ability of manufacturers to build safe aircraft and their desire to stand back of their products were cited as sufficient justification for the step.

## Angle of Attack Indicator Needed for Small Planes

"An instrument that can save 200 gallons of gasoline for a transport plane in an ocean crossing should be made practical for pilots of all types of planes," declared E. S. Hensley, Director, Office of Aviation Safety of the Civil Aeronautics Administration, in discussing the angle of attack indicator.

Pointing to recent use of an angle of attack indicator designed especially for large planes, Mr. Hensley has called for ideas on making the instrument practical for the light plane and less expensive, so that all pilots can reduce the cost of their flying and add to flying safety. A principal feature of the angle of attack indicator is its use as a stall warning indicator and as an aid in stall recovery, and thus it attacks the principal cause of fatal accidents in private flying, the stall.

"Even today, this indicator is not really expensive, when we consider it may replace three instruments now found on many planes," Hensley said. "An essential part of it is the vane which must be mounted in undisturbed air ahead of the plane structure, and while this is fairly easy on big planes, it becomes a problem with smaller planes. On these, it needs to be placed on a boom ahead of the wing and out near the wing tip, away from the influence of the propeller blast, and this complicates the problem of hanging the planes."

**Needs Simplification.**—"The CAA would welcome ideas which would simplify this instrument, make it less expensive and still keep it as versatile as it is now on the big transport jobs. We would try to find some funds with which to further such a development."

A trans-oceanic airline, using an angle of attack indicator, reported the gas saving feature which was made possible by accurate trimming of the plane for most efficient flight through continuous corrections for change in gross load caused by fuel being burned. A major problem in such long flights is the adjustment of plane attitude as the big load of gasoline is decreased. With a continuous indicator of the plane's attitude the plane can be trimmed for economical and efficient flight better than even the most skilled pilot can do it unaided. The same economy could result in light planes so equipped.

Safety features of the indicator involve its use to warn against stalls, still the cause of most fatal flying accidents. The indicator can be set to blow a horn or light a light warning the pilot when his plane is about to lose lift and stall. After a stall, the indicator directs the pilot in the best handling of the plane to recover with the least loss of altitude.

In large planes the indicator has other uses as a primary aid in instrument flying, such as an approach condition indicator and as a landing speed predictor. These would apply to some extent also to the light plane.

Its use, however, to warn against stalls and prevent stall accidents, and its ability to help the pilot trim his plane to the best "miles-per-gallon" attitude, are the features that recommend it to CAA officials concerned with increasing the use of the private plane by reducing the cost of flying and making it safer.

### Don't Become Overtired When Flying

A pilot is wise to keep his hours of flying down to the same eight or ten hours that he is willing to work. Modern job analysis indicates that an eight-hour working day is all that the body and mind can stand and remain in good condition. Even though flying an airplane is fun, it is still work to the muscles and eyes. It is smart to set down for a good night's rest when fatigue is felt.



# Official Actions . . . . . Civil Aeronautics Board

## Regulations

Amdt. 4b-4. . . . . Effective December 20, 1951

Amends Part 4b with respect to provision of emergency evacuation exits on transport category airplanes.

Amdt. 61-5. . . . . Effective November 27, 1951

Amends Part 61 so as to clarify section 61.261 regarding the authority of the Administrator to establish minimum altitudes for over-the-top day operations.

PR-13. . . . . Effective October 24, 1951

Amendment No. 9 to Part 302 adds a new subsection (e) to section 302.11 with respect to the filing of petitions for reconsideration of any final order of the Board in economic proceedings.

SR-377. . . . . Effective November 13, 1951

Establishes a reciprocal arrangement with respect to mechanical work performed on United States registered aircraft in Canada by certain Canadian mechanics, in conformance with the requirements of Part 18 of the Civil Air Regulations.

## Safety Orders

S-456 opinion and order dismiss the complaint of the Administrator of Civil Aeronautics against Wayne A. Kiever and Lester J. Pira, d/b/a Washington Skyways, requesting the suspension or revocation of the air agency certificate held by them. (Oct. 26.)

S-457 modifies examiner's order in the matter of a complaint of the Civil Aeronautics Administrator against Eugene J. Todryk so as to revoke any airman certificate held by him, effective Nov. 8, 1951, and that no type of certificate be issued to him before May 8, 1952. (Oct. 29.)

S-458 grants petition of Howard D. Kelly for waiver of section 20.2 insofar as it requires the written consent of a parent or guardian of a minor applicant for a student pilot certificate. (Oct. 31.)

S-459 modifies examiner's order so as to suspend for 90 days the airman certificate of George Dyas Mace, Jr., from Nov. 11, 1951, or for 90 days subsequent to the date of surrender, and until he has satisfactorily completed a written examination on Parts 43 and 60 of the Civil Air Regulations. (Nov. 1.)

S-460 grants motion of Council for C-46 Engineering insofar as it requests an examiner's report containing a summary and analysis of the relevant evidence in the record in this proceeding and making findings as to subsidiary factual issues as disclosed by the record; orders all parties to submit by Nov. 30, 1951, proposed findings and appropriate supporting memoranda in the matter of a reduction in maximum take-off weights for C-46 aircraft in the carriage of persons for compensation or hire in air commerce; otherwise denies. (Nov. 9.)

## Airline Orders

E-5800 grants Trans World Airlines permission to inaugurate nonstop service, on or about Nov. 1, 1951, between Gander, Newfoundland, Canada, and London, England. (Oct. 22.)

E-5801 orders certain portions of the complaints of Air Transport Associates, Inc., in Dockets Nos. 5000 and 5011 be severed and designated Dockets Nos. 5171 and 5172; orders that certain protests and complaints in Dockets Nos. 5000, 5011, 5129, 5049, 5047, and the Board Investigation, Docket No. 5066, as amended, be consolidated with Docket No. 5067, as amended, to be known as the *Pacific-Northwest-Alaska Tariff Investigation* case. (Oct. 22.)

E-5802 dismisses proceeding of suspension and investigation in the matter of a rule proposed by Braniff Airways, Empire Air Lines, Inland Air Lines, National Airlines, Robinson Airlines Corporation, and Western Air Lines purporting to place a time limitation on liability for unclaimed personal property. (Oct. 22.)

E-5803 orders Continental Air Lines and Mid-Continent Airlines to show cause why the Board should not find that the integration of the routes of said carriers into a single unified system, through consolidation, merger, acquisition of control, or other appropriate means would be consistent with the public interest; orders the matter set for hearing before an examiner of the Board at a time and place to be designated. (Oct. 23.)

E-5804 denies motion of Price Campbell and Pioneer Air Lines for oral argument and reconsideration of Board No. E-4905 in the matter of their joint application for approval of certain interlocking relationships. (Oct. 22.)

E-5805 grants Transocean Air Lines exemption for 6 months from Oct. 26, 1951, from the provisions of section 401 (a) of the Act, and Part 291, so as to permit it to operate 4 one-way flights per month from Munich, Germany, to the United States, carrying refugees under contract with IRO. (Oct. 22.)

E-5806 grants Seaboard & Western Airlines exemption for 6 months from Oct. 26, 1951, from the provisions of section 401 (a) of the Act, and Part 291, so as to permit it to operate 6 one-way flights per month from Europe to the United States carrying refugees under contract with IRO. (Oct. 22.)

E-5807 denies third petition of Cook-Cleland Catalina Airways for consolidation of its application for individual exemption with Docket No. 5132, and reinstatement of its operating authority as a Large Irregular Carrier, pending determination of the proceeding. (Oct. 23.)

E-5808 consolidates in Docket No. 5055, *et al*, *Wiggins Renewal Investigation* case, certain applications of E. W. Wiggins Airways, Northeast Airlines, Robinson Airlines Corporation, and Trans World Airlines in Dockets Nos. 4585, 5116, 5062, and 5060, respectively, and initiates investigation to determine whether the public convenience and necessity require the suspension of the authority of American Airlines to serve Bridgeport and New Haven, Conn., for such period as they may be served on the routes of a local service carrier. (Oct. 23.)

E-5809 approves, subject to stated provisions, the interlocking relationships now or hereafter existing by reason of the holding by Frank E. Martin of certain positions in the Railway Express Agency, Inc., and the Illinois Central Railroad Company and its subsidiaries. (Oct. 24.)

E-5810 orders consolidation in the matter of the application of Robinson Airlines Corporation for renewal of its certificate for route No. 95, of certain applications of Robinson and Colonial Airlines, Dockets Nos. 5061 and 5141, respectively; severs from Docket No. 5061 and assigns Docket No. 5174 to a portion of Robinson's application proposing route extensions to Cleveland, Ohio, and Atlantic City, N. J.; grants Capital Airlines, American Airlines, the Postmaster General; the Department of Commerce, State of New York, City of Watertown, N. Y.; Watertown Municipal Airport Commission; and the 3 international associations, ALSSA, ACMA, and ALPA, leave to intervene. (Oct. 24.)

E-5811 severs and dismisses that portion of the application of K. L. M. Royal Dutch Airlines which requests the designation of Boston, Mass., and New York, N. Y., as intermediate points and the substitution of Willemstad, Curacao, and N. W. I. for New York, N. Y., as terminal point in the matter of its application for amendment of its permit for air transportation between Amsterdam, The Netherlands, and New York. (Oct. 26.)

E-5812 approves interlocking relationship resulting from the simultaneous holding by Sidney F. Brody of certain positions in Mid-Continent Airlines and Marquardt Aircraft Company. (Oct. 26.)

E-5813 authorizes Southern Airways to omit service to Natchez, Miss., on segment 4 of route No. 98 on flights scheduled to arrive there during hours of darkness until the Adams County Airport is adequate for night operations. (Oct. 26.)

E-5814 amends Board order No. E-5722 by removing the clause which would, if it were determined that maximum or minimum rates for large irregular carriers and irregular transport carriers should be established, require the determination of what those rates should be. (Oct. 25.)

E-5815 dismisses application of Student Travel Service, Ltd., for exemption under section 416 (b) of the Act. (Oct. 29.)

E-5816 dismisses application of Northeast Airlines for exemption under section 416 (b) of the Act. (Oct. 29.)

E-5817 dismisses application of Trans World Airlines for an exemption under section 416 (b) of the Act. (Oct. 29.)

E-5818 dismisses application of Modern Air Transport, Inc., for an exemption under section 416 (b) of the Act. (Oct. 29.)

E-5819 grants Chicago and Southern Air Lines leave to intervene in the matter of charter rules, regulations, rates, and charges for air transportation of persons and baggage proposed by The Flying Tiger Line. (Oct. 29.)

E-5820 dismisses application of Oswald Alaska Airways for an exemption authorizing the transfer of Letter of Registration No. 1917. (Oct. 30.)

E-5821 grants American Airlines, Northeast Airlines, Eastern Air Lines, Robinson Airlines Corp., Trans World Airlines, the Commonwealth of Massachusetts, States of New Hampshire and Rhode Island, New England Conference of State Aviation Officials, Aviation Committee of the New England Council, City of North Adams, Mass., Chamber of Commerce of Bridgeport, Conn., and the Postmaster General, leave to intervene in the *Wiggins Renewal Investigation* case. (Oct. 30.)

E-5822 denies petition of Trans World Airlines and Chicago and Southern Air Lines for reconsideration, and modifies order No. E-5743 in the matter of the joint application of Trans World Airlines, and Chicago and Southern Air Lines for approval of an agreement relating to interchange of equipment, so as to include questions relating to whether the public convenience and necessity require that American Airlines provide through service between New York and Houston via equipment interchange with Chicago and Southern at Memphis; the terms and conditions of operation; and whether the Board shall order the establishment of such through service. (Oct. 31.)

E-5823 approves certain agreements between the Air Carrier Members of the Air Traffic Conference of America, and certain other air carriers, relating to resolutions of the Air Traffic Conference of America covering airline reservations, tickets, baggage procedures, and related traffic practices. (Oct. 31.)

E-5824 grants Seaboard & Western Airlines temporary exemption from the provisions of Title IV of the Act and Part 291 so as to permit it to transport Mr. Fred Graham as a revenue passenger on a round-trip air freight flight between New York and various designated points, commencing on or about Nov. 1, 1951, with stopover privileges; orders a report, including specified information, be filed upon completion of the transportation. (Oct. 31.)

E-5825 authorizes Pioneer Air Lines to suspend service at Las Vegas, N. Mex., on segment 4 of route No. 64 until airport facilities there are adequate for Pioneer's use in scheduled air carrier operations. (Oct. 31.)

E-5826 authorizes Ozark Airlines to suspend service at Crawfordsville, Ind., and Poplar Bluff, Mo., on route No. 107 until airport facilities at those points are adequate for Ozark's use in scheduled air carrier operations. (Oct. 31.)

E-5827 orders Alaska Airlines, Inc., to show cause why the Board should not establish certain temporary mail rates over its U. S.-Alaska routes on and after Aug. 17, 1951. (Oct. 31.)

E-5828 orders New England Air Express, Inc., to show cause why its Letter of Registration as a Large Irregular Carrier should not be suspended, in the public interest, until further order of the Board; directs the filing of an answer, appearance before the Board on Nov. 26, 1951, and preservation of all documents and records pertaining to New England's air operations since Jan. 1, 1951. (Oct. 31.)

E-5829 authorizes Continental Air Lines to suspend service at Las Vegas, N. Mex., on route No. 29, from Nov. 1, 1951, until airport facilities are adequate for its use in scheduled air carrier operations. (Nov. 1.)

E-5830 grants West Coast Airlines' permission, with stated provision, to omit service to Roseburg, Ore., on route No. 77, until airport facilities there are adequate for its use during the hours of darkness. (Nov. 1.)

E-5831 orders Northeast Airlines to show cause why the Board should not fix a certain temporary mail rate on and after Nov.

# Suspensions and Revocations . . . . . CAB

## Suspensions

Operating an aircraft on a passenger carrying flight when the weather was below minimums—10 days from Oct. 9—Robert B. Farnham, Hatchville, Mass. (Commercial).

Taking off on a passenger carrying flight when the weather was below minimums and piloting an aircraft during instrument conditions when he did not hold an instrument rating—3 months from Oct. 7—Robert E. Kling, Trenton, N. J. (Private).

Failing to familiarize himself with information pertinent to his intended flight and operating an aircraft in a careless manner (*After becoming lost, the pilot landed on a farm, picked up the 210-pound owner, and attempted to take off. Due to the high altitude, humid atmosphere, rough terrain, and weight of the loaded aircraft, the aircraft rolled some 1,900 feet, failed to become sufficiently airborne, and crashed into a tombstone in a cemetery.*)—30 days from Oct. 3—Charles Enjeian, Whippany, N. J. (Private).

Low flying over a residential area and failing to conform to the traffic pattern for the Friendship International Airport, Md.—9 months from Oct. 30—Richard T. Mann, Baltimore, Md. (Private).

Piloting an aircraft within an Air Defense Identification Zone without filing an appropriate flight plan—7 days from Nov. 3—George T. Fleming, Jr., Chicago, Ill. (Airline Transport).

Low flying over the congested area of Indianapolis, Ind.—90 days from Oct. 27—John E. Franklin, Indianapolis, Ind. (Student).

Operating an unairworthy aircraft, failing to have a medical certificate in his possession, and failing to

record his flight time (*While attempting a turn at low altitude, the aircraft failed to gain altitude and crashed in a wooded area.*)—90 days from Oct. 6—Forest M. Eaton, Phillips, Wis. (Private).

Piloting an aircraft in a careless and reckless manner (*While taking off from a field the aircraft stalled and crashed. The aircraft was totally destroyed by fire and the pilot seriously burned.*)—30 days from Oct. 24—Lee E. Mosher, Warsaw, Ind. (Student).

Operating an aircraft within a control zone without obtaining traffic control clearance—30 days from Sept. 26—Paul Harshman, Dayton, Ohio (Private).

Piloting an aircraft during the hours of darkness without displaying position lights and failing to maintain contact with traffic control when landing on McCarran Field, Las Vegas, Nev.—6 months from Oct. 1—Garth Wilkinson, Monterey, Calif. (Private).

Operating an aircraft that had not been given an annual inspection and piloting in a careless and reckless manner (*While attempting to land on a road the aircraft struck some power lines and crashed.*)—30 days from Oct. 9—James L. Mildon, Pacific Grove, Calif. (Private).

Operating an aircraft in a careless and reckless manner (*The pilot attempted to start the aircraft without having the wheels chocked or braked; the engine started and the aircraft got away, causing considerable damage*)—30 days from Oct. 9—James L. Shaffstall, Portland, Ore. (Private).

Failure to maintain pertinent aircraft and engine logs, and piloting an unairworthy aircraft on a passenger carrying flight—90 days from Aug. 17—O. G. Sanders, Wichita, Kans. (Private and A. & E.).

(Continued on page 139)

(Continued on page 138)

# Regulations of The Administrator

Through December 1, 1951

Note: Regulations of the Administrator marked with an asterisk (\*) on the list given below may be obtained from the Superintendent of Documents, United States Government Printing Office, Washington 25, D. C., at the prices indicated. Remit check or money order, made payable to the Superintendent of Documents, directly to the Government Printing Office. Copies of amendments may be obtained free of charge from the Office of Aviation Information, CAA, Washington 25, D. C., or may be found in the Federal Register for the dates indicated in parentheses. Copies of the Federal Register are obtainable from the Superintendent of Documents.

## Organization

\*Part 400—Organization and Functions. (5¢.)  
Amendments: 1 (July 11, 1951), 2 (August 14, 1951).

## Procedures

\*Part 405—General Procedures. (5¢.)  
\*Part 406—Certification Procedures. (10¢.)  
\*Part 407—Recordation Procedures. (5¢.)  
\*Part 408—Enforcement Procedures. (5¢.)  
Amendments: 1 (Available from CAA.), 2 (October 23, 1951).  
\*Part 410—Delegation Option Procedures for Certification of Small Airplanes (October 4, 1951).

## Rules

### Airmen

\*Part 450—Inter-American Aviation Training Grants. (5¢.)

### Aircraft

\*Part 501—Aircraft Registration Certificates. (5¢.)  
\*Part 502—Dealers' Aircraft Registration Certificates. (5¢.)  
\*Part 503—Recordation of Aircraft Ownership. (5¢.)  
\*Part 504—Recordation of Encumbrances Against Specifically Identified Aircraft Engines. (5¢.)  
\*Part 505—Recordation of Encumbrances Against Aircraft Engines, Propellers, Appliances, or Spare Parts. (5¢.)  
\*Part 506—Airworthiness Directive Recordation. (May 1, 1951).  
\*Part 514—Technical Standard Orders — C Series — Aircraft Components. (October 12, 1951).

### Airports

\*Part 550—Federal Aid to Public Agencies for Development of Public Airports. (10¢.)  
Amendments: 1-15 (Available from CAA.)  
\*Part 555—Acquisition of Government-owned Lands for Public Airport Purposes. (5¢.)  
\*Part 560—Reimbursement for Damage to Public Airports by Federal Agencies. (10¢.)  
Amendments: 1-2 (Available from CAA.)  
\*Part 570—Rules of Washington National Airport. (5¢.)  
Amendments: 1-2 (Available from CAA.)  
\*Part 575—Federal Civil Airports on Canton and Wake Islands. (5¢.)

### Air Navigation

\*Part 600—Designation of Civil Airways (including amendments 1 through 181). (10¢.)  
Amendments: 19-57 (Available from CAA.)  
\*Part 601—Designations of Control Areas, Control Zones and Reporting Points (including amendments 1 through 22). (15¢.)  
Amendments: 23-62 (Available from CAA.)  
\*Part 608—Danger Areas (October 31, 1951).  
Amendments: 1 (Oct. 31, 1951), Correction (Nov. 8, 1951), 2 (Nov. 15, 1951), 3 (Nov. 16, 1951), 4 (Nov. 28, 1951), 5 (Nov. 29, 1951).  
\*Part 609—Standard Instrument Approach Procedures. (July 27, 1951).  
Amendments: 1 (August 25, 1951), Correction (October 17, 1951), 2 (Nov. 6, 1951), 3 (Nov. 3, 1951), 4 (Nov. 21, 1951), Correction (Nov. 22, 1951).  
\*Part 610—Minimum En Route Instrument Altitudes. (July 27, 1951), corrected September 21, 1951).  
Amendments: 1 (August 4, 1951), 2 (August 24, 1951), 3 (Nov. 2, 1951).  
\*Part 612—Aeronautical Fixed Communications. (5¢.)  
\*Part 617—Airport Traffic Control Rules. (April 21, 1951).  
\*Part 620—Security Control of Air Traffic. (5¢.)  
Amendments: 1-5 (Available from CAA.)  
\*Part 625—Notice of Construction or Alteration. (5¢.)

### Miscellaneous

\*Part 635—Reproduction and Dissemination of Current Examination Materials. (Available without charge from CAA.)

# National Airport

(Continued from page 133)

trolled auto parking on the airport property, which will return approximately \$60,000 per year to the U. S. Treasury. The new \$1,500,000 south wing of the airport terminal building was officially opened for public inspection on April 1. It added 161,000 square feet of badly needed space to the old terminal building.

# Scheduled Air Carrier Operations

[Source: CAB Form 41]

## Domestic: September 1951

Operator	Revenue miles	Revenue passen- gers	Revenue passenger miles (000)	Passenger seat miles (000)	Revenue passenger load factor (percent)	Ton-miles flown			
						Express	Freight	United States mail	
Trunk Lines									
American Airlines.....	6,766,325	461,227	236,134	305,473	77.30	647,856	3,020,977	1,172,317	
Braniff Airways.....	990,714	67,104	23,640	34,932	67.67	71,750	144,853	107,515	
Capital Airlines.....	2,263,744	188,631	59,257	91,438	64.81	187,467	476,965	154,951	
Chicago & Southern Air Lines.....	769,839	43,914	15,895	25,280	62.88	67,594	69,726	54,767	
Colonial Airlines.....	355,704	24,634	6,364	10,960	58.07	6,728	9,018	8,848	
Continental Air Lines.....	586,359	26,539	9,959	18,035	55.22	13,854	45,341	35,903	
Delta Air Lines.....	1,301,121	72,741	30,636	47,124	65.01	86,944	299,219	131,957	
Eastern Air Lines.....	4,395,325	284,230	117,434	181,948	64.54	348,176	443,253	422,786	
Inland Air Lines.....	249,743	10,058	4,203	6,090	69.01	7,170	8,569	16,048	
Mid-Continent Airlines.....	716,470	35,596	11,033	18,774	58.77	21,570	39,068	34,051	
National Airlines.....	1,145,592	45,585	26,957	46,857	57.53	30,726	332,655	82,737	
Northwest Airlines.....	461,395	45,017	8,834	13,977	63.20	13,115	21,227	12,750	
Northwest Airlines.....	1,213,388	77,778	52,218	70,750	73.81	129,221	337,434	169,515	
Trans World Airlines.....	4,102,475	187,212	140,124	167,559	83.63	514,416	1,190,178	884,044	
United Air Lines.....	5,431,669	272,606	172,147	219,240	72.52	735,808	1,743,218	1,552,218	
Western Air Lines.....	779,602	52,205	19,749	29,401	67.17	36,701	44,673	97,191	
Trunk Total.....	31,529,465	1,895,077	934,584	1,287,838	72.57	2,919,096	8,245,574	4,937,591	
Feeder Lines									
All American Airways.....	303,587	21,376	3,046	6,375	47.78	12,575	0	5,027	
Bonanza Air Lines.....	76,130	2,611	680	1,560	43.59	147	1,601	469	
Central Airlines.....	118,063	3,779	446	2,479	17.99	898	1,485	1,673	
Empire Air Lines.....	101,838	3,608	720	2,139	33.66	1,728	0	1,840	
Frontier Airlines.....	380,510	9,827	2,640	7,610	34.69	6,238	27,166	11,038	
Helicopter Air Service.....	26,022	0	0	0	—	0	0	2,101	
Lake Central Airlines.....	103,276	3,284	533	2,066	25.80	5,768	0	1,216	
Los Angeles Airways.....	14,764	0	0	0	—	0	0	2,406	
Mid-Continent Airlines.....	81,342	3,985	814	1,725	47.19	3,948	2,802	2,118	
Mid-West Airlines.....	65,433	246	36	262	13.74	0	0	833	
Ozark Air Lines.....	224,697	5,879	990	4,719	20.98	4,615	0	2,296	
Piedmont Aviation.....	371,896	18,094	4,236	7,810	54.24	6,387	8,806	5,362	
Pioneer Air Lines.....	337,343	14,484	3,732	8,096	46.10	3,392	8,920	8,599	
Robinson Airlines.....	128,184	9,608	1,517	2,690	56.39	4,515	3,617	2,318	
Southern Airways.....	260,400	8,930	1,563	5,466	28.59	6,612	0	5,926	
Southwest Airlines.....	202,299	11,355	2,212	4,248	52.07	3,967	8,517	4,663	
Trans-Texas Airways.....	243,812	6,478	1,447	5,120	28.26	2,668	5,648	4,049	
West Coast Airlines.....	113,935	6,900	960	2,393	40.12	814	1,777	630	
Wiggins, E. W. Airways.....	38,320	356	30	146	20.55	153	0	125	
Wisconsin-Central Airlines.....	179,402	10,332	1,652	3,767	43.85	10,805	0	5,490	
Feeder Total.....	3,371,253	141,132	27,254	68,671	39.69	75,225	70,339	68,179	
Territorial Lines									
Caribbean-Atlantic Airlines.....	47,893	6,633	534	1,308	40.83	0	1,517	649	
Hawaiian Airlines.....	276,426	28,196	3,675	5,952	61.74	7,284	69,777	2,124	
Trans-Pacific Airlines.....	111,191	11,308	1,389	3,113	44.62	165	2,057	1,198	
Territorial Total.....	435,510	46,137	5,598	10,373	53.97	7,449	73,351	3,971	
Grand Total.....	35,336,228	2,082,346	967,436	1,366,882	70.78	3,001,770	8,389,264	5,009,741	

## International and Overseas: September 1951

Operator	Revenue miles	Revenue passengers	Revenue passenger miles (000)	Passenger seat miles (000)	Revenue passenger load factor (percent)	Ton-miles flown			
						Express	Freight	United States mail	Parcel post
American Airlines	232,376	9,471	6,914	11,918	58.01	612	115,518	12,613	0
Braniff Airways	277,371	2,606	6,113	12,217	50.04	0	78,358	23,126	0
Chicago & Southern Air Lines	249,252	2,089	2,887	6,436	44.86	0	42,636	3,084	174
Colonial Airlines	70,174	3,617	2,825	3,649	77.42	0	1,893	1,307	164
Eastern Air Lines	251,004	5,796	8,414	14,958	56.25	0	28,206	30,737	0
National Airlines	75,589	8,772	2,237	4,443	50.35	3,566	14,894	3,565	0
Northwest Airlines	482,135	7,716	13,694	18,681	73.30	27,601	491,807	157,319	0
Pan American World Airways, Inc.									
Atlantic Division	1,479,338	34,943	54,376	76,710	70.89	0	1,072,265	429,043	89,728
Latin American Division	2,404,962	62,762	64,164	103,436	62.03	0	1,833,873	276,832	0
Alaska Operations	300,731	8,295	8,229	14,274	57.65	0	510,678	39,836	0
Pacific Operations	769,148	7,446	26,947	36,569	73.69	0	763,932	262,232	15,807
Pan American-Grace Airways	491,288	10,056	10,539	18,338	57.47	190,297	0	27,022	9,676
Trans World Airways	1,267,435	16,537	41,590	53,620	77.56	0	597,059	279,661	45,432
United Air Lines	270,460	4,207	10,417	14,226	73.23	0	44,113	69,481	0
Uruba, Medellin & Central Airways	8,528	170	56	171	32.75	0	5,948	0	0
<b>Total</b>	<b>8,519,791</b>	<b>184,483</b>	<b>259,402</b>	<b>389,646</b>	<b>66.57</b>	<b>222,076</b>	<b>5,601,180</b>	<b>1,615,518</b>	<b>160,981</b>

## Official Actions -----CAB

(Continued from page 137)

1, 1951, over its entire system, and that proceeding remain open pending an order fixing final rates retroactive to May 1, 1947. (Nov. 1.)

E-5832 denies application of U. S. Airlines for exemption from the requirements of section 401 of the Act so as to permit it to engage in interstate, overseas, and foreign air transportation of persons and property pursuant to contracts with any department of the military establishment. (Nov. 2.)

E-5833 dismisses proceeding in the matter of the proposals of Delta Air Lines, Eastern Air Lines, and National Airlines to continue summer excursion fares beyond Sept. 30, 1951. (Nov. 2.)

E-5834 orders Robinson Airlines Corporation to show cause why the Board should not establish the mail rates set forth in an attached statement over its entire system on and after Sept. 19, 1945. (Nov. 2.)

E-5835 denies motion of Northwest Airlines for an immediate hearing in Dockets Nos. 2377, 2901, and 4327 involving

(Continued on page 141)

# Scheduled Air Carrier Operations

(Continued on Page 140)

## International and Overseas: January-September 1951, 1950.

Operator	Revenue miles January-September		Revenue passengers January-September		Revenue passenger miles (000) January-September		Passenger seat miles (000) January-September		Revenue passenger load factor (percent) January-September	
	1951	1950	1951	1950	1951	1950	1951	1950	1951	1950
American Airlines	2,140,060	1,720,102	87,794	67,473	65,812	51,841	109,564	84,726	60.07	61.19
American Overseas Airlines (ceased opr. 9/26/50)	—	4,808,057	—	105,823	—	160,108	—	242,038	—	66.15
Braniff Airways	2,397,726	1,862,221	21,525	14,507	45,786	29,973	104,168	79,606	43.95	37.65
Chicago & Southern Air Lines	1,251,384	1,461,273	20,397	17,698	24,478	21,344	57,416	58,481	42.68	36.50
Colonial Airlines	602,663	446,714	32,881	16,954	25,757	13,763	31,338	21,937	82.19	62.74
Eastern Air Lines	1,903,368	560,659	40,357	13,103	55,402	13,626	112,078	28,119	49.43	48.46
National Airlines	933,242	583,488	90,189	63,270	23,501	17,058	51,451	32,442	45.68	52.58
Northwest Airlines	4,697,568	4,640,600	58,398	39,870	100,034	76,251	173,770	133,007	57.57	57.33
Pan American World Airways:										
Atlantic Division	11,974,030	9,145,234	284,921	122,013	382,099	259,627	583,276	358,792	65.51	72.36
Latin American Division	21,446,484	20,589,114	612,679	544,782	534,454	460,015	876,432	748,651	60.98	61.45
Alaska Operations	2,193,561	1,836,129	43,501	33,564	44,346	31,516	97,438	57,727	45.51	54.59
Pacific Operations	6,849,863	7,083,763	61,656	57,702	212,879	171,990	332,313	307,094	64.06	56.01
Pan American-Grace Airways	4,381,504	4,274,528	88,242	72,495	92,098	76,251	159,520	160,553	67.73	47.49
Trans World Airlines	9,940,437	10,492,219	109,957	95,755	275,447	262,033	426,447	412,579	64.59	63.51
United Air Lines	2,341,054	1,449,801	32,222	21,717	79,614	52,120	121,444	75,587	65.56	68.95
Uraba, Medellin & Central Airways	77,408	75,960	1,939	1,947	636	640	1,551	1,306	41.01	49.00
Total	73,130,352	71,029,862	1,566,658	1,288,673	1,962,343	1,698,156	3,238,206	2,802,645	60.60	60.59
Index (1950=100)	102.96	100.00	121.57	100.00	115.56	100.00	115.54	100.00	100.02	100.00

Operator	Ton-miles flown							
	Express January-September		Freight January-September		United States mail January-September		Parcel Post January-September	
	1951	1950	1951	1950	1951	1950	1951	1950
American Airlines	7,295	9,215	1,142,064	988,711	116,532	88,743	0	0
American Overseas Airlines (ceased opr. 9/26/50)	—	2,058,699	—	0	—	1,076,291	—	285,557
Braniff Airways	0	0	1,090,495	668,218	121,692	37,524	0	0
Chicago & Southern Air Lines	0	0	457,111	482,102	25,222	20,419	1,667	1,630
Colonial Airlines	0	0	30,532	42,930	13,275	2,875	1,082	760
Eastern Air Lines	0	0	192,977	253,346	263,657	53,082	0	4,254
National Airlines	14,439	118,738	211,800	64,698	12,804	9,504	0	0
Northwest Airlines	189,299	118,838	5,298,049	4,144,676	1,299,744	1,510,261	0	0
Pan American World Airways:								
Atlantic Division	6,417,994	5,773,115	2,222,412	0	3,030,726	1,920,627	783,370	458,959
Latin American Division	9,829,884	15,621,810	7,290,827	0	2,270,022	2,026,360	0	0
Alaska Operations	2,336,137	3,019,569	1,618,145	0	333,542	284,614	0	0
Pacific Operations	3,179,397	4,023,225	1,972,222	0	3,390,125	4,282,586	15,807	0
Pan American-Grace Airways	1,742,244	1,215,849	0	0	258,874	248,021	66,445	22,598
Trans World Airlines	0	0	4,644,458	4,160,950	2,513,944	1,902,023	428,971	322,632
United Air Lines	0	0	359,594	250,419	607,360	436,788	0	0
Uraba, Medellin & Central Airways	28,447	23,743	17,586	0	0	0	0	0
Total	23,745,136	31,982,851	26,548,252	11,051,050	14,257,519	13,899,723	1,297,342	1,096,391
Index (1950=100)	74.24	100.00	240.23	100.00	102.57	100.00	118.33	100.00

## Domestic: Passenger Miles Flown (Total revenue and nonrevenue, in thousands)

	January	February	March	April	May	June	July	August	September	Total
Trunk	744,984	689,234	864,819	865,751	890,976	950,740	946,363	994,477	968,165	7,915,509
Feeder	18,080	17,205	22,774	24,014	28,831	31,185	29,799	32,560	29,025	233,474
Territorial	3,886	3,613	4,459	3,759	4,727	6,499	7,080	7,985	5,754	47,762
Total	766,950	710,052	892,052	893,524	924,534	988,424	983,242	1,035,022	1,002,945	8,196,745

## Suspension-Revocations

(Continued from page 137)

Low flying in the vicinity of Seattle, Wash.—30 days from Oct. 2—W. R. Rutherford, Seattle, Wash. (Commercial).

Piloting an aircraft as low as 50 feet over a congested area of the city of Taboga, Republic of Panama—8 months from Oct. 17—Roy N. Parkey, Panama Canal Zone (Private).

Low flying over a congested area of the city of Littleton, Colo.—90 days from Sept. 20—Robert G. Burnett, Littleton, Colo. (Commercial).

Operating an aircraft within a control zone without receiving permission from traffic control or filing a flight plan and flying during instrument weather when he did not hold an instrument rating—30 days from Oct. 12—Harold G. Kramer, Hampton, Iowa (Private).

## Revocations

Failing to make a written report of an accident in which he was involved, failing to submit to a re-examination, and failing to notify the CAA of a change in his permanent mailing address—Clarence R. Hopkins, Lee, Mass. (Commercial).

Repeated violations while his certificate was under suspension—Anthony R. La Nasa, Niagara Falls, N. Y. (Private).

Piloting an aircraft on a passenger carrying flight—Lionel H. Daniel, Brooklyn, N. Y. (Student).

Piloting an aircraft on a passenger carrying flight while under the influence of intoxicating liquor—James M. Rogers, Birmingham, Ala. (Student).

Piloting an aircraft on a passenger carrying flight—Loren Sennwald, Detroit, Mich. (Student).

Piloting an aircraft on a passenger carrying flight—Roy H. Herbel, Booker, Tex. (Student).

"Buzzing" a house while carrying a passenger (On the second dive the left wheel hit the roof of the

house and the aircraft crashed into the ground. The pilot was thrown clear but the passenger was killed in the crash and ensuing fire.)—James McDugle, Tulsa, Okla. (Private).

"Buzzing" a business block of Lubbock, Tex., and operating an aircraft while under the influence of intoxicants—Jackson F. Douglas, Lubbock, Tex. (Private).

Executing dives and pull-ups at a low altitude in the vicinity of McCarran Field, Las Vegas, Nev., and failing to conform to the traffic pattern for the airport—James T. Riewer, North Hollywood, Calif. (Private).

Operating an aircraft over a congested area of the city of Wagner, S. Dak., at an altitude as low as 25 feet from the ground, and other violations—Robert Versaw, Hastings, Neb. (Private).

Operating an aircraft on a passenger carrying flight and in a careless manner (In attempting to land, the pilot misjudged his distance and crashed.)—Maynard L. Sullivan, Sargent, Neb. (Student).



## Helpful Publications

Publications listed below are on sale by the Superintendent of Documents, Government Printing Office, Washington 25, D. C. Orders must be accompanied by money order or check made payable to the Superintendent of Documents.

### Flight Assistance

#### Airman's Guide and Flight Information

Manual ..... \$6 a year

(The Airman's Guide, published every 2 weeks, contains three sections: Directory of Airports, Radio Facility Data, and Notices to Airmen. The Flight Information Manual supplements the Airman's Guide and is issued semiannually.)

### Airports

Airport Buildings ..... 20 cents  
(Problems of airport building design are discussed and several solutions suggested.)

Airport Design ..... 30 cents  
(Provides basic information on airport construction.)

Airport Landscape Planting ..... 15 cents  
(Provides practical information on how to improve the appearance of an airport.)

Airport Turfing ..... 25 cents  
(Describes various problems involved and presents methods used in establishing and maintaining a good turf.)

Seaplane Facilities ..... 25 cents  
(Answers problems posed by the planning and construction of seaplane bases.)

Small Airports ..... 15 cents  
(Answers to many problems confronting communities or individuals who want to build a small airport.)

Standard Specifications for Construction of Airports ..... \$2.25  
(Contains specification items for construction of airports and air parks. Covers clearing and grubbing, grading, drainage, paving, lighting, turfing, and incidental construction.)

### Flight Training

Aircraft Powerplant Handbook ..... \$1.50  
(For students, mechanics, pilots, and engineers who have only superficial knowledge of aircraft powerplant fundamentals.)

Facts of Flight ..... 75 cents  
(A nontechnical manual, with chapters on airplane flight, stalls, spins, airplane structure, airplane engine, flying the plane, airport traffic, seaplanes, and safety in flight.)

Flight Instruction Manual ..... \$1.50  
(A complete text on flight training for student and instructor. Includes acrobatic maneuvers.)

Path of Flight ..... 75 cents  
(Practical information about basic navigation of aircraft, presented in brief form for the use of the private pilot.)

Questions and Answers for Private Pilots ..... 15 cents  
(A collection of the questions and answers upon which the private pilot written examination is based.)

Realm of Flight ..... 60 cents  
(Presents practical information about the effect of atmospheric conditions upon flight.)

Personal Aircraft Inspection Manual ..... 55 cents  
(Contains information dealing with the fundamentals of inspection and provides a general maintenance guide for the owners of personal type aircraft.)

### Miscellaneous

#### ANC Procedures for the Control of Air

Traffic ..... 45 cents

(Officially approved manual of air traffic control procedures adopted for use by civil and military air traffic control personnel. These procedures are required to be followed by all civil controllers holding certificates under Part 26 of the CAR.)

Personal-Aircraft Owner's Guide ..... 15 cents  
(A collection of the questions most frequently asked by the owners of personal aircraft.)

Terrain Flying ..... 25 cents  
(Describes the special problems and hazards encountered in flying over various kinds of terrain and proper precautions.)

The Air Fair ..... 20 cents  
(Gives detailed helps in planning and operating an air fair.)

The Flying Club ..... 15 cents  
(Planning and organization material so arranged as to permit "tailoring" to fit local conditions.)

## Scheduled Air Carrier Operations

(Continued on Page 141)

### Domestic: January-September 1951, 1950

Operator	Revenue miles January-September		Revenue passengers January-September		Revenue passenger- miles (000) January-September		Passenger seat- miles (000) January-September	
	1951	1950	1951	1950	1951	1950	1951	1950
<b>Trunk Lines</b>								
American Airlines	54,636,964	42,526,740	3,652,188	2,506,200	1,836,737	1,259,227	2,415,377	1,832,772
Braniff Airways	8,726,633	8,353,766	578,905	466,437	199,191	157,273	307,183	291,446
Capital Airlines	18,883,572	15,222,377	1,458,365	1,003,116	455,560	297,443	742,953	554,367
Chicago and Southern Air Lines	6,194,994	5,495,865	331,285	235,952	122,315	83,866	193,097	153,930
Colonial Airlines	2,899,904	2,572,927	184,276	144,086	46,844	37,145	85,476	74,491
Continental Air Lines	4,792,005	4,302,437	206,009	150,361	75,745	52,730	140,942	121,740
Delta Air Lines	12,314,265	10,716,712	652,218	464,893	301,368	207,058	447,346	357,341
Eastern Air Lines	42,453,765	39,535,299	2,618,314	1,918,670	1,196,939	915,059	1,833,085	1,481,816
Inland Air Lines	2,074,766	2,350,453	72,921	68,777	29,608	27,150	50,526	51,546
Mid-Continent Airlines	6,238,967	6,306,923	291,653	257,209	89,510	75,861	154,329	144,219
National Airlines	11,357,226	8,519,288	464,407	285,524	302,770	179,448	469,825	339,653
Northeast Airlines	3,652,831	3,143,428	353,120	280,230	67,852	53,101	110,844	102,389
Northwest Airlines	9,297,791	15,429,614	527,821	632,297	351,401	402,032	586,960	693,287
Trans World Airlines	36,787,821	33,897,308	1,560,149	1,141,147	1,130,592	808,863	1,467,809	1,227,954
United Air Lines	42,527,547	39,962,004	2,115,132	1,843,667	1,275,871	1,045,496	1,670,290	1,521,809
Western Air Lines	6,227,849	6,174,335	434,623	325,551	162,143	124,476	243,105	233,068
Trunk Total	269,066,920	244,509,476	15,501,386	11,724,067	6,444,446	5,726,228	10,869,147	9,181,828
Index (1950=100)	110.04	100.00	132.22	100.00	133.50	100.00	118.38	100.00
<b>Feeder Lines</b>								
All American Airways	2,445,921	2,344,545	162,166	113,525	22,903	16,050	51,364	49,231
Bonanza Air Lines	685,247	676,357	22,058	13,478	5,609	3,274	14,002	13,495
Central Airlines	1,052,456	1,344,726	22,730	7,358	3,168	829	19,209	4,034
Empire Air Lines	930,730	855,771	33,665	33,363	6,457	6,251	19,544	17,970
Frontier Airlines	3,364,549	2,657,149	76,776	46,729	20,675	12,661	67,292	51,010
Helicopter Air Service	245,714	246,228	0	0	0	0	0	0
Lake Central Airlines	872,717	597,096	22,509	7,664	3,681	1,208	18,239	7,499
Los Angeles Airways	231,440	257,168	0	0	0	0	0	0
Mid-Continent Airlines	711,143	10,595	31,698	389	6,465	88	14,966	222
Mid-West Airlines	586,016	1,138,384	2,032	5,309	298	782	2,345	4,551
Ozark Air Lines	1,442,865	4,127	34,338	117	5,550	18	28,961	74
Piedmont Aviation	3,077,862	2,729,085	140,934	89,864	32,695	18,512	64,637	57,311
Pioneer Air Lines	2,875,253	2,795,091	118,599	33,188	30,813	25,117	69,005	67,196
Robinson Airlines	1,084,706	851,294	71,615	39,589	11,142	6,256	22,245	16,716
Southern Airways	2,207,619	1,296,812	68,913	24,283	12,185	4,106	46,307	27,196
Southwest Airways	1,849,248	1,755,219	105,806	88,596	20,674	16,446	38,845	36,850
Trans-Texas Airways	2,148,731	2,238,099	55,328	44,453	12,799	10,015	45,081	46,907
West Coast Airlines	991,911	955,086	60,213	53,471	8,918	7,651	20,829	20,057
Wiggins, E. W. Airways	425,173	299,997	3,331	2,280	305	206	1,658	1,194
Wisconsin-Central Airlines	1,501,210	1,523,695	71,292	36,033	11,512	5,761	26,222	12,620
Feeder Total	28,728,536	24,576,524	1,104,003	699,689	215,849	135,231	570,751	434,143
Index (1950=100)	116.89	100.00	157.78	100.00	159.62	100.00	131.47	100.00
<b>Territorial Lines</b>								
Caribbean-Atlantic Airlines	460,208	420,262	71,366	56,602	5,714	4,545	12,362	10,578
Hawaiian Airlines	2,431,575	2,235,397	262,416	253,209	34,129	32,914	52,310	49,417
Trans-Pacific Airlines	496,331	—	56,651	—	7,006	—	13,897	—
Territorial Total	3,388,114	2,655,659	390,433	309,811	46,849	37,459	78,569	59,995
Index (1950=100)	127.58	100.00	126.02	100.00	125.07	100.00	130.96	100.00
Grand Total	301,183,570	271,741,659	16,995,822	12,733,567	7,907,144	5,898,918	11,518,467	9,675,966
Index (1950=100)	110.83	100.00	133.47	100.00	134.04	100.00	119.04	100.00

## Tourist Fare Structure

(Continued from page 135)

for single berths should be \$50 and for double berths \$75; and (3) That a minimum charge of \$14 should be made for a sleeperette.

**Other Areas Unchanged.**—The Board generally favors retention of the present rate structure in all other areas and said that no change should be made at this time in the rate structure in the Pacific and South and Middle Atlantic areas because of the anticipated possible effect of inauguration of a North Atlantic tourist service.

With respect to the application of special fares for nationals or residents of particular countries, the Board reaffirmed its position that such fares are unjustly discriminatory and that it will not be able to approve any new fares of this type. The Board also stated that it is even more concerned about the beginnings of a trend toward special fares for air carriers of a particular country or region and labeled such trend as a type of discriminatory rate making which the Board can, under no circumstances, approve.

## C & S Mail Rate Payments Decreased

The Civil Aeronautics Board has issued a show cause order proposing final mail rates for Chicago and Southern Air Lines, Inc., effective October 1, 1951, which the Board estimated would yield the carrier \$1,045,000 annually.

The final mail rate proposed by the Board is \$1.45 per mail ton-mile as compared with the old rate of \$1.95 per mail ton-mile, and will result in a reduction in mail pay of \$249,000, or 19.24 percent less than the amount provided by the previous rate.

The new rate, which is equal to \$1,045,000 annually, includes \$382,000 as compensatory mail pay and \$663,000 as subsidy.

## Scheduled Air Coach Service Extended

The Civil Aeronautics Board announced recently that it would extend all existing reduced fare air coach services on the certificated airlines for a period of 90 days beyond their present expiration date of December 31, 1951. The Board said this action was taken to enable the carriers to accept advance bookings and plan their operations and scheduling for coach service beyond December 31, 1951.



# Scheduled Air Carrier Operations

(Continued from Page 140)

Domestic: January-September 1951, 1950

Operator	Revenue passenger load factor (percent)		Ton-miles flown					
	January-September		Express January-September		Freight January-September		United States mail January-September	
	1951	1950	1951	1950	1951	1950	1951	1950
<b>Trunk Lines</b>								
American Airlines	76.04	68.71	6,561,205	4,760,343	25,557,929	24,427,644	10,304,397	6,729,674
Branniff Airways	64.84	58.96	792,777	718,088	1,588,131	1,388,014	1,110,960	924,753
Capital Airlines	61.32	53.65	1,947,751	1,621,545	3,853,916	6,094,484	1,411,119	1,062,298
Chicago and Southern Air Lines	63.34	54.48	568,849	480,758	599,479	645,028	479,172	422,531
Colonial Airlines	54.80	49.87	66,310	58,852	80,301	77,047	78,447	66,927
Continental Air Lines	53.74	43.31	114,083	75,914	420,373	354,140	248,164	144,847
Delta Air Lines	67.37	57.94	870,507	718,674	2,655,752	2,149,932	1,217,046	851,253
Eastern Air Lines	65.80	61.75	3,820,773	2,941,264	8,853,556	8,384,109	4,086,595	3,505,984
Inland Air Lines	58.60	52.67	67,174	48,937	102,881	120,367	145,074	89,508
Mid-Continent Airlines	58.00	52.60	201,067	177,100	390,381	372,312	310,192	235,721
National Airlines	64.44	52.83	313,444	431,618	3,727,712	1,910,486	777,905	474,995
Northeast Airlines	61.21	51.86	145,012	125,984	195,010	215,089	110,388	83,593
Northwest Airlines	65.44	57.99	1,359,779	1,461,436	2,934,022	5,035,315	1,534,587	1,825,826
Trans World Airlines	77.08	65.87	5,721,210	4,198,055	11,074,217	9,234,849	3,375,386	6,277,681
United Air Lines	76.39	68.70	7,546,709	5,991,555	16,852,950	20,291,761	12,187,568	8,452,251
Western Air Lines	66.70	53.41	915,401	373,844	473,788	532,226	875,230	578,904
Trunk Total	70.33	62.36	30,412,051	24,183,867	74,290,398	81,233,403	43,252,230	31,726,696
Index (1950=100)	112.78	100.00	125.75	100.00	91.45	100.00	136.33	100.00
<b>Feeder Lines</b>								
All American Airways	44.59	32.60	114,722	80,496	0	0	41,954	30,283
Bonanza Air Lines	40.06	24.26	2,153	1,484	12,223	7,137	4,815	3,841
Central Airlines	16.49	20.55	3,502	0	5,017	0	15,556	11,754
Empire Air Lines	33.04	34.79	14,197	13,209	0	0	17,540	14,301
Frontier Airlines	30.72	24.82	57,310	39,447	226,653	122,852	94,873	47,545
Helicopter Air Service	—	—	0	0	0	0	18,209	14,913
Lake Central Airlines	20.18	16.11	71,357	14,808	0	0	10,550	3,502
Los Angeles Airways	—	—	0	0	0	0	34,494	31,611
Mid-Continent Airlines	43.20	39.64	33,806	334	29,193	498	16,421	273
Mid-West Airlines	12.71	17.18	0	0	0	0	7,065	13,292
Osark Air Lines	19.16	24.32	46,849	0	0	0	14,581	136
Piedmont Aviation	50.58	32.30	67,875	56,868	94,815	94,850	46,889	36,962
Pioneer Air Lines	44.65	37.38	32,563	34,665	109,570	98,798	77,311	71,276
Robinson Airlines	60.09	37.43	45,963	28,667	29,457	23,961	19,702	16,390
Southern Airways	26.31	15.10	58,067	29,254	0	0	62,852	29,911
Southwest Airways	53.22	44.62	35,586	35,670	103,202	99,420	43,088	34,579
Trans-Texas Airways	28.39	21.35	21,588	21,594	46,630	42,555	35,527	38,991
West Coast Airlines	42.82	38.15	8,342	9,555	29,622	8,956	7,961	5,527
Wiggins, E. W. Airways	18.40	17.25	1,392	0	0	0	1,088	1,288
Wisconsin-Central Airlines	43.90	45.65	30,368	34,238	0	0	41,513	27,767
Feeder Total	37.82	31.15	695,640	400,339	686,382	499,027	611,789	434,142
Index (1950=100)	121.41	100.00	173.76	100.00	137.54	100.00	140.92	100.00
<b>Territorial Lines</b>								
Caribbean-Atlantic Airlines	46.22	42.97	0	0	16,875	20,000	6,652	7,393
Hawaiian Airlines	65.24	66.60	73,455	87,565	595,403	346,429	26,824	40,341
Trans-Pacific Airlines	50.41	—	929	—	10,735	—	5,618	—
Territorial Total	59.63	62.44	74,384	87,565	623,013	366,429	39,094	47,784
Index (1950=100)	95.50	100.00	84.95	100.00	170.02	100.00	81.90	100.00
Grand Total	68.65	60.96	31,182,075	24,671,771	75,599,793	82,098,859	43,908,113	32,208,572
Index (1950=100)	112.61	100.00	126.39	100.00	92.08	100.00	136.31	100.00

## Official Actions . . . CAB

(Continued from page 138)

service to Portland, Ore., and Seattle, Wash., on Northwest's route No. 28 to Alaska and the Orient. (Nov. 2.)

E-5836 authorizes All American Airways to suspend service at Bellefonte State College, Pa., on segment 7 of its route No. 97 until airport facilities there are adequate for regularly scheduled air carrier operations. (Nov. 5.)

E-5837 opinion and order in the *Florida-Bahamas Service* case grant Midet Aviation Corporation a certificate for 3 years for route No. 110, authorizing foreign air transportation of persons and property between West Palm Beach and Miami, Fla., and West End, Grand Bahama Island, B. W. I. Approved by the President Nov. 5, 1951. (Sept. 4.)

E-5838 orders Northwest Airlines to show cause why the Board should not establish the mail rates set forth in an attached statement over its trans-Pacific routes from Sept. 26, 1946, to Dec. 31, 1950, inclusive. (Nov. 2.)

E-5839 orders Northwest Airlines to show cause why the Board should not establish mail rates set forth in an attached statement over its routes authorized for the transportation of mail within the continental United States and between the United States and terminal points in Canada. (Nov. 2.)

E-5840 opinion and order in the *Transcontinental Coach-Type Service* case deny the application of Air America, Inc., Trans American Airways, Inc., California Eastern Airways, Inc., and Great Lakes Airlines, Inc., Dockets Nos. 3475, 3730 3731, and 3737, respectively, insofar as they request authorization to engage in air coach services to be conducted without limitation as to the number of schedules which the applicant can operate; otherwise defers. (Nov. 7.)

E-5841 approves certain agreements between the Air Carrier Members of the Air Traffic Conference of America, and certain other air carriers, relating to resolutions of ATCA covering airline reservations, tickets, baggage procedures, and related traffic practices. (Nov. 8.)

E-5842 approves certain agreements between Pan American World Airways, various foreign air carriers, and another air carrier, relating to general agency matters. (Nov. 8.)

E-5843 approves certain agreements between Trans World Airlines, and various foreign air carriers, relating to general agency matters. (Nov. 8.)

E-5844 approves, subject to conditions, certain agreements between the air carrier members and associate members of the Air Transport Association of America relating to amendments to the Articles of Association of ATA. (Nov. 8.)

E-5845 extends from Nov. 14, 1951, to Feb. 11, 1952, the suspension of fares and other provisions from Anchorage and Fairbanks, Alaska, to Seattle, Wash., ordered by E-5590 and amended by E-5613, in the matter of reduced fares proposed by Air Transport Associates. (Nov. 8.)

E-5846 authorizes Wisconsin Central Airlines to suspend service temporarily at Racine-Kenosha, Wis., until 60 days after decision is made in the *Wisconsin Certificate Renewal* case, et al, Docket No. 4387. (Nov. 8.)

E-5847 opinion and order in the *Frontier Renewal* case amend the certificates of United Air Lines for route No. 1 and Frontier Airlines for route No. 73, effective Nov. 13, 1951; amend certain portions of order No. E-5702. (Nov. 9.)

E-5848 institutes investigation of, and suspends to Feb. 9, 1952, certain fares and rates proposed by Northern Consolidated Airlines, Inc., for causal, occasional or infrequent service. (Nov. 8.)

(Continued on page 142)

## Correction

The Grand Total of mail ton-miles flown, shown on page 129 of the November Journal, should be 38,893,372 instead of 38,893,281.

## Civil Aviation Highlights

	1951	1950
<b>Airports and airfields recorded with CAA . . . . . November 1</b>		
By type:		
Commercial	2,083	2,357
Municipal	2,815	2,259
CAA Intermediate	59	92
Military	829	829
All others	1,466	1,361
a. Private	1,815	1,216
b. Miscellaneous government	151	145
Civil airports and airfields by class:		
Total	5,923	6,069
Class I and under	3,865	4,006
Class II	954	970
Class III	509	500
Class IV	381	372
Class V	132	140
Class VI and over	82	81
Total U. S. civil aircraft . . . . . November 1	89,451	92,642
Scheduled air carrier aircraft	1,226	1,200
<b>Civil aircraft production . . . . . September</b>		
Total	184	298
1- and 2-place models	60	100
3-, 4-, and 5-place models	97	186
Over 5-place models	27	12
<b>Certificates approved . . . . . September</b>		
Student pilots	5,949	4,228
Private pilots	1,295	2,496
Commercial pilots	456	373
Airline transport pilots	99	79
Mechanics (original certificates)	265	540
Ground instructors (original certificates)	43	82
Flight instructor ratings	167	104
Instrument ratings	354	99
Control tower operators	118	62
<b>Traffic Control activity . . . . . September</b>		
Aircraft operations, CAA airport towers	1,585,160	1,406,372
Fix postings, CAA airport centers	1,121,471	1,083,436
Instrument approaches, CAA approach control towers	23,207	18,951
<b>AIRPORT OPERATIONS</b>		
<b>Washington National . . . . . October</b>		
Scheduled air carrier:		
Passengers departing	118,448	82,461
Passengers arriving	116,104	81,086
Aircraft arrivals and departures	12,651	10,605
Other aircraft arrivals and departures	4,084	3,010
<b>San Francisco Municipal . . . . . September</b>		
Scheduled air carrier:		
Passengers departing	65,289	59,654
Passengers arriving	68,870	59,286
Aircraft arrivals and departures	9,723	7,505
Other aircraft arrivals and departures	4,163	3,873
<b>Oakland Municipal . . . . . September</b>		
Scheduled air carrier:		
Passengers departing	9,405	8,306
Passengers arriving	10,460	8,664
Aircraft arrivals and departures	5,284	4,669
Other aircraft arrivals and departures	10,749	13,506
<b>Miami International . . . . . September</b>		
Scheduled air carrier:		
Passengers departing	59,356	47,142
Passengers arriving	54,729	47,082
Aircraft arrivals and departures	7,303	8,266
Other aircraft arrivals and departures	10,616	7,491
<b>Los Angeles International . . . . . September</b>		
Scheduled air carrier:		
Passengers departing	80,486	65,100
Passengers arriving	78,689	64,421
Aircraft arrivals and departures	9,425	8,779
Other aircraft arrivals and departures	5,941	5,976

<sup>1</sup> Airport type definitions: Commercial—Public use and public services, private control. Municipal—Public use and public services, public control. CAA Intermediate—No public services, CAA control. Military—No public services, military control. (a) No public services, private control (b) No public services, Federal Government control (Forest Service, etc.)

<sup>2</sup> The following is a breakdown of paved airports and unpaved airfields by class:

Class of Facility	Paved airports		Unpaved airfields		Total	
	1951	1950	1951	1950	1951	1950
Class I and under	121	108	3744	3898	3865	4006
Class II	174	155	780	815	954	970
Class III	340	324	169	176	509	500
Class IV	338	333	43	39	381	372
Class V	126	130	6	10	132	140
Class VI and over	80	78	2	3	82	81
Total	1,179	1,128	4,744	4,941	5,923	6,069

# Air Regulations and Manuals . . . . . December 1, 1951

TITLE	NO.	Civil Air Regulations				Civil Aeronautics Manuals			
		Price	Date	Amend-ments	Special Regulations	Price	Date	Supple-ments	Amending Releases
AIRCRAFT									
Certification, Identification, and Marking of Aircraft and Related Products . . . . .	1	\$0.05	1/15/51						
Production Certificates . . . . .	02								
Airplane Airworthiness; Normal, Utility, Acrobatic, and Restricted Purpose Categories . . . . .	3	.15	11/ 1/49	6	358, 360.			7	
Airplane Airworthiness . . . . .	04					.75	7/ 1/44		193, 202
Airplane Airworthiness . . . . .	4a	.20	4/ 7/50		358, 360, 375.				
Airplane Airworthiness; Transport Categories . . . . .	4b	.25	7/20/50	5	358, 360, 361, 370.			6	
Rotorcraft Airworthiness . . . . .	6	.10	1/15/51		358, 360.			1	
Aircraft Airworthiness; Restricted Category . . . . .	8	.05	10/11/50			.60	1/ 1/51	1	
Aircraft Airworthiness; Limited Category . . . . .	9	.05	11/11/49	1					
Aircraft Engine Airworthiness . . . . .	13	.05	8/ 1/49	2	358.				
Aircraft Propeller Airworthiness . . . . .	14	.05	11/ 1/49	2	358.	.15	5/ 1/46		
Aircraft Equipment Airworthiness . . . . .	15	.05	11/ 1/49	3	358, 360.				
Aircraft Radio Equipment Airworthiness . . . . .	16	.05	2/13/41			Free	2/13/41		62, 272
Maintenance, Repair, and Alteration of Certified Aircraft and of Aircraft Engines, Propellers, and Instruments . . . . .	18	.05	8/15/49		377	1.25	8/ 1/49	1	
PILOTS									
Pilot Certificates . . . . .	20	.05	8/ 1/49	10	374			1	
Airline Transport Pilot Rating . . . . .	21	.05	8/15/49	3	374.				
Lighter-than-air Pilot Certificates . . . . .	22	.05	11/ 1/49	6				1	
Mechanic Certificates . . . . .	24	.05	9/ 1/49	5	365, 374.				
Parachute Rigger Certificates . . . . .	25	.05	9/ 5/50	1				4	
Air-traffic Control-tower Operator Certificates . . . . .	26	.05	11/ 1/49	4				2	
Aircraft Dispatcher Certificates . . . . .	27	.05	11/ 1/49	4	374.				
Physical Standards for Airmen . . . . .	29	.05	10/ 1/49	2				3	
Flight Radio Operator Certificates . . . . .	33	.05	2/15/50	5	374.			2	
Flight Navigator Certificates . . . . .	34	.05	11/ 1/49	4	374.				
Flight Engineer Certificates . . . . .	35	.05	11/ 1/49	4	374.			2	
OPERATION RULES									
Air Carrier Operating Certification . . . . .	40	.05	9/ 1/49		356, 363, 366, 367, 369.			4	
Certification and Operation Rules for Scheduled Air Carrier Operations Out- side the Continental Limits of the United States . . . . .	41	.05	11/15/49	3	356, 360, 367, 372.			11	
Irregular Air Carrier and Off-Route Rules . . . . .	42	.10	6/ 1/49	9	360, 367, 368, 375.	1.00	9/ 1/49	3	
General Operation Rules . . . . .	43	.05	8/ 1/49	7	360.			2	
Foreign Air Carrier Regulations . . . . .	44	.05	9/ 1/49						
Commercial Operator Certification and Operation Rules . . . . .	45	.05	11/15/49	1	356, 367, 375.				
Operation of Moored Balloons . . . . .	48	.05	9/ 1/49						
Transportation of Explosives and Other Dangerous Articles . . . . .	49	.10	7/20/49						
AIR AGENCIES									
Airman Agency Certificates . . . . .	50	.05	10/ 1/49	4		.50	8/-/51		
Ground Instructor Rating . . . . .	51	.05	10/10/49	2				1	
Repair Station Rating . . . . .	52	.05	10/15/49			Free	5/-/40		
Mechanic School Rating . . . . .	53	.05	10/15/49			.15	7/ 1/48		
Parachute Loft Certificates and Ratings . . . . .	54	.05	10/15/49	1					
AIR NAVIGATION									
Air Traffic Rules . . . . .	60	.10	8/ 1/49					5	
Scheduled Air Carrier Rules . . . . .	61	.10	9/ 1/49	5	356, 360, 363, 366, 367, 369.			8	
Notice and Reports of Aircraft Accidents and Missing Aircraft . . . . .	62	.05	5/ 1/49						

NOTE: Items for which a price is listed may be obtained from the Superintendent of Documents, Government Printing Office, Washington 25, D. C. Remittances should be made by check or money order payable to the Superintendent. Amendments and Special Regulations may be obtained from the Publications Section, Civil Aeronautics Board, Washington 25, D. C. Free Manuals, Supplements and Releases are available from the Office of Aviation Information, Civil Aeronautics Administration, Washington 25, D. C.

<sup>1</sup> Pending publication of a complete Manual, supplements containing rules, policies, and interpretations of the CAR's will be issued in the form of pages for a Manual and will be available free of charge until release of the Manual.

<sup>2</sup> Certain aircraft may comply with the provisions of this Part or Part 4a.

## Official Actions . . . . CAB

(Continued from page 141)

E-5849 authorizes, with stated provision, Frontier Airlines to omit a stop at Gallup, N. Mex., on one daily round-trip flight between Farmington and Albuquerque, and between Farmington and Winslow, until Nov. 1, 1952. (Nov. 8.)

E-5850 denies motion of National Airlines for reconsideration of Board order No. E-5692 in the *Southern Service to the West* case and orders certain documents stricken from the record. (Nov. 8.)

E-5851 approves certain agreements involving Northwest Airlines, Mid-Continent Airlines, various air carriers, and other carriers, relating to intercompany arrangements listed in an attached Appendix "A". (Nov. 9.)

E-5852 denies petition of Eastern Air Lines for reconsideration of Board order No. E-5692 in the *Southern Service to the West* case. (Nov. 9.)

E-5853 grants the City and Chamber of Commerce of Wichita, Kans., and the Chamber of Commerce of Texarkana, Arkansas-Texas, leave to intervene in the matter in the application of Central Airlines for renewal of its temporary certificate for air transportation of persons, property, and mail over route No. 81; denies the petition of Chamber of Commerce of San Angelo, Tex. (Nov. 9.)

E-5854 dismisses the application of Metropolitan Air Commuting, Inc., for reissuance in its name of the certificate originally issued in the name of Air Commuting, Inc. (Nov. 9.)

E-5855 orders consolidation for hearing of the application of the City of Norman, Okla., Docket No. 4872, with the Central Renewal Proceeding, Docket No. 4083, et al. (Nov. 9.)

E-5856 dismisses application of Transocean Air Lines for an exemption under section 416 (b) of the Act. (Nov. 9.)

E-5857 authorizes All American Airways to suspend service temporarily at Indiana and Stroudsburg-East Stroudsburg, Pa., until 60 days after the Board's final decision in the *All American Certificate Renewal* case, Docket No. 5053; grants exemption

for same period from the condition in its certificate which prohibits nonstop service between Scranton-Wilkes-Barre, Pa., and New York, N. Y.-Newark, N. J. (Nov. 13.)

E-5858 authorizes Frontier Airlines, upon condition, to suspend service at Kemmerer, Wyo., until such time as the airport facilities there are adequate for its use in scheduled air carrier operations. (Nov. 13.)

E-5859 orders Capital Airlines to show cause why the Board should not establish the mail rates set forth in an attached statement over its entire system. (Nov. 9.)

E-5860 denies and order deny petition of Capital Airlines for reconsideration of Board order No. E-5746 and its motion to enlarge the scope of the proceeding in the matter of mail rates over its entire system. (Nov. 9.)

E-5861 grants petitions of certain air carriers, associations, and state and city organizations to intervene in the New England-Southern States Merger Investigation; denies petition of Francis Hartley, Jr., to intervene, but grants him permission to participate in the proceeding pursuant to Part 302.6 (a) of the Board's Procedural Regulations. (Nov. 13.)

E-5862 grants Riddle Aviation exemption from the provisions of section 401 (a) of the Act and Part 295 of the Economic Regulations so as to permit it to serve West Palm Beach, Fla., on southbound flights from New York, N. Y., on operations conducted pursuant to its Letter of Registration; otherwise denies. (Nov. 13.)

E-5863 denies motion of Chicago and Southern Air Lines for consolidation and expeditious hearing on its petition for an investigation with respect to the provision of air transportation service to and from Greenwood, Miss. (Nov. 13.)

E-5864 dismisses petition of The Flying Tiger Line for further extension of the temporary exemption, granted by Board order No. E-3054, from the provisions of section 401 (a) of the Act, and Part 295 of the Economic Regulations. (Nov. 13.)

E-5865 grants Frontier Airlines exemption for 30 days in the *Frontier Renewal* case from Condition No. 11 in its amended certificate for route No. 73, insofar as it requires that the intermediate point Alamosa-Monte Vista, Colo., on segment

## CAM Supplements and Aviation Safety Releases

(Issued between November 1, 1951 and November 30, 1951, and obtainable from the CAA Office of Aviation Information, Department of Commerce, Washington 25, D. C.)

### Aviation Safety Releases

No.	Date	Subject
350	11/27/51	Errors in Reading Conventional Three-Pointer Altimeter.

### CAM Supplements

CAM No.	Supplement No.	Date	Title
27	3	11/30/51	Requirements for Approved Aircraft Dispatcher Courses.
60	6	11/30/51	Air Traffic Clearances.

4, be served through a single airport. (Nov. 13.)

E-5866 authorizes Central Airlines to suspend service at Durant, Okla., on segment 2 of its route No. 81 until such time as airport facilities there are adequate for its use in scheduled air carrier operations. (Nov. 14.)

# Index to CAA Journal, Volume 12

(January 20-December 20, 1951, Inclusive)

## A

	Page
Accidents:	
Private pilots, study of	38
Rate	49
Reports by CAB	17, 29, 41, 65,
Aerovias "Q", S.A., granted permit	123
Agricultural Flying:	
Aircraft use	26, 51, 56, 97
Aircraft used, number of	25, 36
Development	97
Mobilization, program drafted	109
Operators, list of	110
Production increase	56
Special plane developed	8, 56, 73, 97
Summary, 1950	1
Air Coordinating Committee:	
Air traffic control, 'blueprint' for	2
Radio Ranges, decommissioning policy for	86
Air Defense:	
Air defense identification zones	120
Air defense identification zone, map available	7
Airman identification cards required	37
Aircraft procurement, priorities system	1, 13, 26, 73
Civil aviation's role in national defense	1
Flight plan form devised	24
Flight plans mandatory in defense zones	1
Mobilization, air transport industry program	109
Mobilization, uniform state plan for	108
Aircraft:	
Agricultural plane, CAA sponsored	8, 56, 73, 97
Air carrier, in service	15
Airworthiness requirements	43
C-46, proposed reduction in weights of	87
Helicopter, local service use	72
Helicopter, service authorized by Board	87
Instrument arrangement, air carriers	3
Instruments, angle of attack indicator	136
Instruments, pictorial	133
Landing gear, cross wind	12
Lights subject to research	72
Local service, development	141
Number of	5, 17, 33, 45, 55, 69, 83, 90, 105, 129,
Number of in 1950	11
Operators, commercial, list of	110
Owners, list available	43
Procurement under priorities system	1, 13, 26, 73
Production	5, 17, 33, 45, 55, 69, 83, 90, 105, 117, 129, 141
Prototype committee, appointed	11
Prototype committee, reports	13, 35, 64, 85
Shipments	8, 23, 38, 71, 96, 106, 136
Testing, manufacturers authorized	71, 133
Testing, manufacturers to be responsible for	36, 51, 56, 97
Use	25, 95
Use, small planes	
Airlines:	
Aircraft in use	15
Aircraft, number of	5, 17, 33, 45, 55, 69, 83, 90, 105, 117, 129, 141
Aircraft, proposed reduction in weight of	87
Aircraft seats available, average	15
American Airlines, mail rates	98
American Airlines, mail rates	12
Capital Airlines, mail rates	134
Chicago and Southern, Chicago to Havana service denied	51
Chicago and Southern Airlines, mail rates	140
Coach type service	134, 140
Colonial Airlines, mail rates	122
Domestic trunkline service pattern	27
Eastern Air Lines, mail rates	98
Eastern Air Lines, Puerto Rico service	36
Local service operations, development	75
Local service operations, problems	94
Mail payments, subsidy separated from service	123
Mobilization, program drafted	109
National Airlines, New York-Miami coach service approved	99
National Airlines, operations approved	46
Pan American World Airways, mail rates	98
Safety record, 1950	1
Scheduled operations, 1950, summary of	11
Scheduled operations, statistics on	6, 18, 30, 54, 66, 78, 90, 102, 114, 126, 138
Tourist rate structure	135
Transatlantic charter flights Board policy	39
Trans World Airlines, mail rates	98
Airmen:	
Aliens, certificates to expire	108
Certificates, commercial, issued in month	5, 17, 33, 45, 55, 69, 83, 90, 105, 117, 129, 141
Certificates, control operator, issued in month	5, 17, 33, 45, 55, 69, 83, 90, 105, 117, 129, 141
Certificates, flight instructor, issued in month	5, 17, 33, 45, 55, 69, 83, 90, 105, 117, 129, 141
Certificates, ground instructor, issued in month	5, 17, 33, 45, 55, 69, 83, 90, 105, 117, 129, 141
Certificates, mechanics, issued in month	5, 17, 33, 45, 55, 69, 83, 90, 105, 117, 129, 141
Certificates, number of	11, 98
Certificates, private, issued in month	5, 17, 33, 45, 55, 69, 83, 90, 105, 117, 129, 141
Certificates, student, issued in month	5, 17, 33, 45, 55, 69, 83, 90, 105, 117, 129, 141
Certificates, transport, issued in month	5, 17, 33, 45, 55, 69, 83, 90, 105, 117, 129, 141
Commercial pilot written test, includes radio	37
Flight plan form revised	24
Identification cards	37, 96, 121
Identification cards, use as passport	46
Pilot certificates issued	47
Pilot ratings, higher skill requirements for	38
Private pilot examination, written test	85
Airport Development:	
Federal aid airport program	50
Federal aid airport program for 1952	121
National Airport Plan, 1951	73
Summary, twenty-five year	59
Airports:	
Local service	84
Los Angeles International, Operations	5, 17, 33, 45, 55, 69, 83, 90, 105, 117, 129, 141
Miami International, Operations	5, 17, 33, 45, 55, 69, 83, 90, 105, 117, 129, 141
Mobilization, program drafted	109

## Airports—continued:

	Page
Number of	5, 11, 17, 33, 45, 55, 59, 69, 83, 90, 105, 107, 117, 129, 141
Number of, by class	5, 17, 33, 45, 55, 69, 83, 90, 105, 117, 129, 141
Number of, by states	5, 17, 33, 45, 55, 69, 83, 90, 105, 117, 129, 141
Oakland Municipal, operations	5, 17, 33, 45, 55, 69, 83, 90, 105, 117, 129, 141
San Francisco Municipal, operations	5, 17, 33, 45, 55, 69, 83, 90, 105, 117, 129, 141
Steel available for construction	122
Washington National operations	5, 17, 53, 45, 55, 69, 83, 87, 90, 105, 117, 129, 133, 141
Air Transport Associates, rehearing denied	134
Airway Aids:	
ACC report	2
Communication system, interphone networks	110
Communications system, landline circuits	110
Descriptions	47, 74, 99, 110, 131
Development, summary of	62, 99
Distance measuring equipment	99
Electronic equipment, purchases	108
Facilities commissioned, summary of	1
Instrument landing system	99
Number of	24, 49, 92, 99, 110
Omnirange	99
Radar devices	99
Radio ranges, ACC approves decommissioning of	99
Radio ranges 'peak' identification	86
Traffic control activity	5, 17, 33, 45, 55, 69, 83, 90, 105, 117, 129, 133, 141
Visual aids	99
Airways:	
Air Marker Installations	78
Common System	74
Common system, transition program	99, 110
Development, summary	110
Mileage	62
Mobilization, program drafted	109
Traffic control, ACC report on	2
Traffic control, operations combined	109
VHF airway	47
All American Airways, route extended	68
American Airlines:	
Mail rates	98
Toronto stop granted	12
Arrow Airways, registration revoked	15

## C

Capital Airlines, mail rates	134
Cargo:	
Operations	44
Chicago and Southern Air Lines, Chicago to Havana Service Denied	51
Chicago and Southern Air Lines, mail rates	140
Civil Aeronautics Administration:	
Aircraft, owner lists available	43
Aviation Safety, Office of, reorganized	121
Ballistocardiograph improved	6, 17, 34, 43, 52, 68, 80, 95, 103, 130,
CAM Supplement and Aviation Safety Releases	142
Communicators avert crashes	48
Defense activities	1, 7, 13, 24, 26, 37, 73, 108, 109, 120, 133
Employees awarded medals for bravery	25
Employees on NACA Subcommittees	26
Films and film strips	8, 43, 70
Foreign Nationals trained	44, 122
Jap pilots learn traffic control	11
Jobs in Alaska	23
Light 'guns', target for testing	92
Manuals and Supplements	10, 22, 34, 42, 52, 70, 82, 94, 106, 118, 130,
Nautical mile changeover to	116
Office of Aviation Defense Requirements	13, 26, 78
Personnel changes	13, 15, 37, 50, 57, 68, 71, 92
Progress of civil aviation	49, 57, 72, 133
Regulations of the Administrator	10, 22, 34, 42, 53, 70, 82, 94, 102, 114, 126, 138
Releases	2, 18, 32, 38, 51, 71, 74, 86, 98, 110, 122, 136
Technical development, summary of	69
Traffic control waivers, policy on	169
Civil Aeronautics Board:	
Accident Reports	17, 29, 41, 65, 125
Additional Service to Puerto Rico case	39
Airline development, local service	75
Bolivian pilot's certificate revoked	35
Bureau of Air Operations established	6
Civil Air Regulations	10, 22, 34, 42, 52, 70, 82, 94, 106, 118, 130, 142
Coach type service	134, 140
Domestic trunkline service pattern	27
Freight forwarding unauthorized, CAB policy regarding	27
Ground instructor rating retained	122
Interchange agreement approved	87
Interchange agreements disapproved, policy statement	123
Mail payments, subsidy separated from service, policy statement	46
National Route investigation case	13
Objectives for 1951	4, 16, 28, 40, 53, 64, 76, 88, 100, 112, 124, 137
Official Actions	3, 23, 35, 37, 39
Personnel changes	2, 18, 32, 38, 51, 71, 74, 86, 98, 110, 122, 136
Practice before the Board, rules of	27, 39, 87
Releases	20, 30, 41, 54, 65, 77, 89, 101, 113, 123, 137
Southern Service to the West case	135
Supensions and Revocations	39
Tourist rate structure	106
Transatlantic charter flights, statement of policy	87, 96
West Coast, Southwest merger denied	142
Civil Air Regulations:	
Airman identification cards required	10, 22, 34, 42, 52, 70, 82, 94, 106, 118, 130, 142
Amendments, revisions, and special regulations	3
Instrument arrangement for air carrier aircraft	85
Private pilot rating written test required	87
Proposed amendment to Part 3	42
Proposed amendment to Part 42	43
Proposed revision of Part 3	5, 17, 33, 45, 55, 69, 83, 90, 105, 117, 129, 141
Civil Aviation Highlights	122
Colonial Airlines mail rates	122
Communication system, CAA:	
Interphone networks, description	110
Landline circuits, description	110
Compania Cubana de Aviacion, S.A., Havana-New York route granted	98



# Index to CAA Journal—Concluded

(January 20 - December 20, 1951, Inclusive)

D	Page
Distance measuring equipment, description .....	99
Dusting and spraying:	
Aircraft used, number of .....	25, 36
Chemicals .....	97
Hazards .....	36
Operators, list of .....	110
Operators, survey of .....	108
Special plane for agricultural flying .....	8, 56, 73, 97

E	Page
Eastern Air Lines:	
Mail rates .....	98
Puerto Rico service .....	36
Engines:	
Shipments .....	14, 43, 50, 93, 105, 127
Turbine, development of recommended .....	85

F	Page
Feeder Airlines:	
All American Airways, route extended .....	60
Frontier Airlines, certificate extended .....	119
Local service operations, development .....	73
Local service operations, problems .....	84
Los Angeles Airways, helicopter service authorized .....	87
Mail payments, subsidy separated from service .....	123
Midwest Aviation, certificate granted .....	134
Piedmont, certificate renewed .....	3
Trans-Texas Airways certificate renewed .....	35
Frontier Airlines, certificate extended .....	119

H	Page
Helicopter:	
Local service use .....	84
Service authorized by Board .....	87
Horne, Charles F.:	
Aeronautical Training Society, address before .....	72
Appointed Administrator .....	37
Local Service Airline Forum, address before .....	84
National Flying Farmers Convention, address before .....	97

I	Page
Industrial Flying:	
Aircraft use .....	36
Mobilization, program drafted .....	109
Instrument landing system, description .....	99
International Aviation:	
Bolivia, CAA designs airports .....	49
Canada, Flight entries now simplified .....	25
Cuba, Aerovias "Q", U. S. A., granted permit .....	123
Cuba, Compania Cubana de Aviacion, S. A., Havana-New York route granted .....	98
Ecuadorian award given Werner .....	132
Export equipment, inspection by CAA .....	48
Flights outside U.S., customs clearance .....	92
'Language' for pilots .....	121
Missions, CAA .....	61
Passports, use of CAA identification cards .....	46
Scheduled International air carrier operations .....	7, 19, 31, 55, 67, 79, 91, 103, 115, 127, 139
South America, CAA experts assigned to .....	92
Toronto, American Airlines, stop granted .....	98
Venezuela, Linea Aeropostal Venezolana, show cause order .....	123
Irregular Air Carriers:	
Air Transport Associates, rehearing denied .....	134
Arrow Airways, registration revoked .....	15
Investigation instituted by Board .....	119
Meteor Air Transport, cease and desist order .....	22
Military exemption .....	46
Modern Air Transport, exemption denied .....	133
New England Air Express, show cause order .....	75
Operational limits, court enjoins Board enforcement .....	35
Oxnard Sky Freight, cease and desist order .....	36
Riddle Aviation Co., Puerto Rico service .....	36
Transatlantic Charter Flights, Board policy .....	39

L	Page
Linea Aeropostal Venezolana, show cause order .....	123
Los Angeles Airways, helicopter service authorized .....	87
Los Angeles International Airport, operations .....	5, 17, 33, 45, 55, 69, 83, 90, 105, 117, 129, 141

M	Page
Maps and Charts:	
ADIZ map .....	24, 120
ADIZ map available .....	7
Route-Chart Series completion announced .....	7
Meteor Air Transport, cease and desist order .....	141
Miami International Airport, operations .....	5, 17, 33, 45, 55, 69, 83, 90, 105, 117, 129, 134
Midwest Aviation, certificate granted .....	99
Modern Air Transport exemption denied .....	99

N	Page
National Airlines:	
New York-Miami coach service approved .....	99
Operations approved .....	46
New England Air Express, show cause order .....	135
Nyrop, Donald W.:	
Aero Club of Washington, address before .....	13
Airport Operators Council, address before .....	50

Nyrop, Donald W.—continued:	Page
Appointed Board Member and Chairman .....	37
Local Service Airline Forum, address before .....	75
Los Angeles Chamber of Commerce, address before .....	49
National Agricultural Conference, address before .....	26
Rollins College, address before .....	23

O	Page
Oakland Municipal Airport, operations .....	5, 17, 33, 45, 55, 69, 83, 90, 105, 117, 129, 141
Omnirange description .....	99
Oxnard Sky Freight cease and desist order .....	35

P	Page
Pan American World Airways, mail rates .....	98
Personal News Items:	
Adams, Joseph, appointed Board Member .....	35
Bain, Gordon M., appointed Director, Bureau of Air Operations of CAB .....	23
Beardslee, John M., appointed Director, Office of Federal Airways .....	71
Brimhall, Dean R., retires from Federal service .....	50
Gaillard, G. R., appointed Director, Office of Aviation Defense Requirements .....	13
Gurney, Chan, appointed Board Member .....	39
Lee, Frederick B., appointed Deputy Administrator .....	71
Marsh, E. C., appointed Chief, Technical Staff Division .....	68
Stovall, W. R., elected President, Aero Medical Association .....	71
Tippett, Joseph H., appointed Deputy Director, Office of Federal Airways .....	71
Werner, J. M., appointed Acting Executive Director of the Board .....	3
Werner, Ernest H., receives Ecuadorian award .....	132
Piedmont Aviation, certificate renewed .....	3
Propellers:	
Shipments .....	43
Publications:	
Air Coordinating Committee reports .....	2, 86
Aircraft Use in 1949 .....	36
Alaska recreation areas, list of .....	51
ANC-23, Sandwich Construction for Aircraft, Part I .....	27
Commercial plane operators, list of .....	110
Film Catalogue .....	43
Flight Instruction Manual .....	96
Helpful publications, list of .....	9, 21, 44, 77, 93, 104, 128, 140
Personal Aircraft Inspection Manual .....	13
Personal-Aircraft Owner's Guide .....	105
Questions and Answers for Private Pilots .....	85
RTCA Reports .....	2, 50, 82
The Flying Club .....	84
VHF Noise Reduction in Light Aircraft .....	45

R	Page
Radar devices, airways, description .....	99
Radio Technical Commission for Aeronautics, reports .....	2, 50, 82
Rentzel, D. W.:	
Appointed Under Secretary of Commerce for Transportation .....	37
Aviation Writers Association of Washington, address before .....	14
Riddle Aviation Co., Puerto Rico service .....	36

S	Page
San Francisco Municipal Airport, operations .....	5, 17, 33, 45, 55, 69, 83, 90, 105, 117, 129, 141
Safety:	
Agricultural plane .....	8, 56, 73, 97
Cigarette lighters, free-liquid .....	132
Defective sight not hazardous .....	23
Discussion meetings suggested .....	108
Promotion by CAA, summary of .....	61
Radio communications, value in flying .....	96
'Rubber man' developed for testing purposes .....	97
Stall recovery demonstrations .....	97
Statistics:	
Aircraft, number of, 1950 .....	11
Airline aircraft seats available, average .....	15
Airmen certificates issued, number of .....	11, 98
Airports, number of, 1950 .....	11, 107
Airports, number of, by States .....	107
Airways facilities .....	92
Cargo carrier operations .....	44
Civil aircraft shipments .....	8, 23, 38, 71, 96, 106, 127
Civil aircraft engine shipments .....	14, 43, 50, 93, 105, 127
Civil aviation activities, summary of .....	1, 11, 49
Civil aviation highlights .....	5, 17, 33, 45, 55, 69, 83, 90, 105, 117, 129, 141
Scheduled air carrier aircraft in use .....	15
Scheduled air carrier operations .....	6, 18, 30, 54, 66, 78, 90, 102, 114, 126, 138

T	Page
Trans-Texas Airways certificate renewed .....	35
Trans World Airlines, mail rates .....	98

U	Page
United Air Lines, mail rates .....	98

V	Page
Visual Aids, airways, description .....	99

W	Page
Washington National Airport:	
Operations .....	5, 17, 33, 45, 55, 69, 83, 90, 105, 117, 129, 133, 141
Passenger Traffic all-time record .....	87, 133

age  
37  
75  
49  
26  
25

141  
99  
35

98

35  
23  
71  
50  
13  
39  
71  
68  
71  
71  
3  
132  
3

43

86  
36  
51  
27  
110  
43  
96  
140  
13  
105  
85  
82  
84  
45

99  
82  
37  
14  
36

141

97  
132  
23  
108  
61  
96  
97

11  
15  
1, 98  
107  
107  
92  
44  
127  
1, 127  
1, 49  
141  
15  
138

35  
98

98

99

3, 141  
7, 133